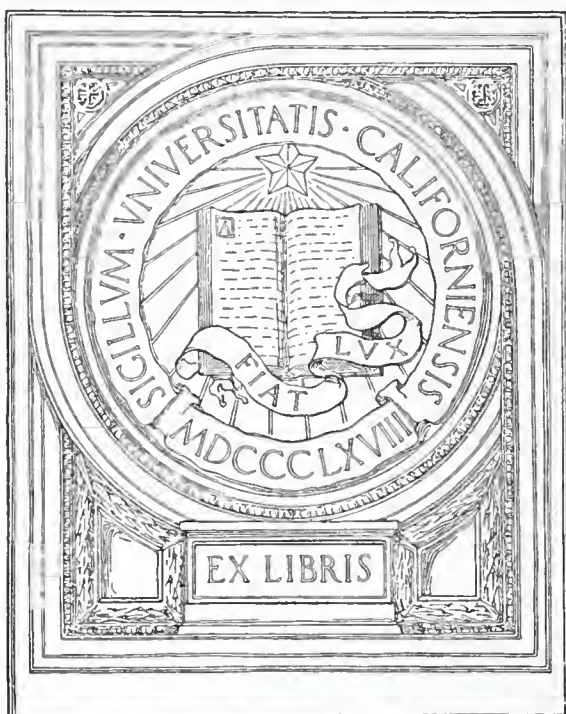



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The OHIO STATE MEDICAL JOURNAL

JANUARY, 1943

Vol. 39

Number 1

UNIVERSITY OF CALIFORNIA
MEDICAL SCHOOL

Ohio Medicine's Pledge for 1943 . . .

- To: Participate Actively in All Efforts Toward Victory for America and Her Allies.
- To: Supply Additional Medical Officers for the Armed Forces When the Need Arises.
- To: Maintain Adequate Medical and Health Services for the Civilian Population During the Emergency.
- To: Cooperate with Procurement and Assignment In Meeting Military and Civilian Medical Needs.
- To: Protect the Rights and Preserve the Practices of Physicians in Military Service.
- To: Fight Proposals To Destroy the Democratic Principles Upon Which American Medicine Is Founded.

The Ohio State Medical Journal

Vol. 39

January, 1943

No. 1

Published monthly by The Ohio State Medical Association, 79 East State Street, Columbus, Ohio. Subscription, \$3.00 per year to non-members; Single Copy, 30 cents.

Entered as second class matter July 5, 1905, at the Postoffice at Columbus, Ohio, under act of Congress of March 3, 1879; Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Oct. 3, 1917. Authority July 10, 1918.

The Journal does not assume responsibility for opinions expressed by the essayists. Advertisers must conform to standards and regulations established by the American Medical Association.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

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No. 1

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor*

ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Our Plans for 1943

IT is our purpose to streamline The JOURNAL for the coming year in keeping with the needs of the war. We, who are practicing medicine on the home front, must be kept fully informed of the new and constantly reminded of the useful old, yet there is not as much time to devote to reading. Therefore, all the articles in our JOURNAL must be brief, easily read, informative, and timely.

To carry out this purpose, we have asked the Committee on Scientific Work, and the chairman, and secretary of each of the Scientific Sections to help us by suggesting titles and prospective authors so that there will be no loss to the physicians of Ohio due to the fact that the Annual Session this year will be for only one day. We shall try to publish in The JOURNAL, all that they would like to have presented in the regular three-day session if they could have given it.

To this end, we also solicit short papers of 3,000 words or less which shall remind us all that although most of our time must be given to binding up wounds and treating the seriously sick, nevertheless we do have the important duty of seeing that all of our own patients are immunized against infections; that they understand the importance of good nutrition for themselves and their children so that they will not become breeders of epidemics; that they have sound advice on all matters of hygiene. There is no shortage of physicians in Ohio that can in any way become critical if we keep ourselves fit and able to increase our individual output of effort by 25 per cent. The only danger lies in the appearance of a major epidemic. This can be prevented only through more complete immunization of the civilian population and a good nutritional state for everyone of them.

The JOURNAL will keep the membership informed about legislation and regulations affecting the medical profession; the need of the Army and Navy for more physicians; the work of Procurement and Assignment; and the job of getting physicians to relocate where there is a need.

May we be able to serve you efficiently during the coming year. May you be able to keep your people well and at work, supplying our armed forces to the end that each of us do all he can to hasten victory and keep for ourselves and our colleagues who come back from the war a place in the hearts of our countrymen so that all shall be conscious of the traditions which have made our profession noble.

To these ends we dedicate The JOURNAL for 1943.

61389
The Editor

Auricular Fibrillation*

CURTIS F. GARVIN, M.D.

AURICULAR fibrillation is a disturbance of the action of the heart in which normal auricular contraction is replaced by irregular fibrillary twitchings. From a clinical standpoint there are two main types: the paroxysmal or intermittent type, and the continuous, permanent, or chronic type. The chronic type is more common and more important, and it is with this variety that this paper is concerned.

FREQUENCY

Auricular fibrillation is the most common serious disorder of the heart beat. A study of the clinical records of 790 consecutive adult, autopsied patients who died of heart disease at Cleveland City Hospital in the past decade disclosed chronic auricular fibrillation in 182 cases, an incidence of 23 per cent. In other words, more than one-fifth of the patients with serious organic heart disease are destined sooner or later to develop auricular fibrillation.

ETIOLOGY

The exact cause of auricular fibrillation is unknown. Two factors of importance appear to be the type of heart disease present, and the age of the patient. The variation in the incidence of auricular fibrillation in the different types of heart disease is shown in Table I which is based upon post mortem material from Cleveland City Hospital. Of the more common types of heart disease, rheumatic heart disease was the one most likely to be associated with auricular fibrillation; 51 per cent of the cases had this complication. Hypertensive heart disease and coronary artery disease were about alike, with auricular fibrillation in about 20 per cent of the cases. About 10 per cent of the patients who died of cor pulmonale had this disorder of the cardiac mechanism, while this complication was distinctly uncommon in syphilitic heart disease, subacute and acute bacterial endocarditis.

In a previous paper¹ it was shown that, on the average, the age at death of cardiac patients with auricular fibrillation was older than that of patients with a normal cardiac mechanism. This would seem to be a reasonable finding for heart disease usually is of some standing before auricular fibrillation develops. It appears that it can be concluded that the older a cardiac patient

The Author

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is the greater are the chances for the development of auricular fibrillation. Sex and race were not found to be of significance.

DIAGNOSIS

The diagnosis of auricular fibrillation usually is not difficult. The irregularity is a total irregularity—an irregular irregularity. A characteristic which is very helpful is the detection upon auscultation of peculiar, short, grossly irregular runs. A feature, somewhat unique to auricular fibrillation, is that the irregularity increases after exercise. The ventricular rate usually is between 100 and 160 per minute. When the ventricular rate is very slow or very rapid, the irregularity is less marked and more difficult to diagnose.

The pulse is irregular in rate, rhythm, and volume, with, at times, a pulse deficit. The variation in the pressure of beats renders determination of the blood pressure difficult, and the findings are only approximately correct.

Frequently occurring premature contractions on occasions offer difficulty in differential diagnosis but ordinarily on careful auscultation a predominant rhythm can be established; this does not occur in auricular fibrillation. Furthermore, exercise tends to decrease the occurrence of premature contractions while it increases the irregularity of auricular fibrillation.

Pronounced sinus arrhythmia may be confusing. Its occurrence in young healthy persons and its tendency to disappear on exercise are helpful in differential diagnosis.

Auricular flutter with varying degrees of block is rare but may resemble auricular fibrillation so closely that the correct diagnosis can be made only after electrocardiographic studies.

The three criteria for electrocardiographic diagnosis are (1) the absence of the P wave, (2) the presence of fibrillary waves, and (3) grossly irregular ventricular deflections.

*From the Department of Medicine of Cleveland City Hospital and the Western Reserve University School of Medicine.

Submitted September 26, 1942.

PROGNOSIS

In general, auricular fibrillation is a functional disorder, and is of considerably less importance in prognosis than is the underlying heart disease. Nevertheless, in its own right, auricular fibrillation can be a serious matter. First, the efficiency of the heart as a pump is decreased. Secondly, a study² of 116 cases of rheumatic heart disease at Cleveland City Hospital showed that of 60 patients with auricular fibrillation there were 26 with mural thrombi (43.3 per cent) whereas, among 50 patients with a normal cardiac mechanism there were only nine with mural thrombi (18 per cent). This difference is statistically significant. The predominant frequency of thrombi in the atria (86.5 per cent were found in the atria) is probably also an indication of the etiological importance in the production of mural thrombi of auricular fibrillation, with its consequent stagnation of blood in the atria. And there is evidence that mural thrombi in the heart are a significant cause of embolic occlusion of arteries in both the lesser and greater circulation.³

TREATMENT

Complete rest should be enforced and full digitalization accomplished. The ventricular rate is the best guide as to the amount of digitalis to be used, sufficient of the drug being given to reduce the ventricular rate to between 70 and 90 beats per minute.

In emergencies, 7½ grains (0.5 gram) of standardized digitalis in solution is given intravenously and repeated in four hours. This usually suffices to bring the rate down.

If treatment need not be so heroic, one 1½ grain (0.1 gram) tablet of digitalis can be given five times a day for three days, or four times a day for four days, or three times a day for about a week.

Digitalization having been accomplished, a maintenance dose of 1½ grains (0.1 gram) per day is given. The dosage suggested is average and on occasions must be increased or decreased, the degree of slowing of the ventricular rate and the tolerance to the drug being the most important guides.

In patients who do not have serious organic heart disease or congestive failure, in whom the auricular fibrillation has been of relatively short duration and unaccompanied by the dislodgement of emboli, an attempt to convert the cardiac mechanism to normal by means of the use of quinidine is indicated. After preliminary digitalization a test dose of 3 grains (0.2 gram) of quinidine is given to rule out undue sensitivity. Then 6 grains (0.4 gram) are given every two hours except during sleep. Use of the drug is stopped and the administration of digitalis continued if a normal mechanism is not restored

in a few days. If normal rhythm appears, 3 grains (0.2 gram) of quinidine are given three to four times a day for a variable length of time. The appearance of toxic symptoms or persistent auricular flutter are indications to stop the use of quinidine.

SUMMARY

Auricular fibrillation is the most common serious disorder of the heart beat. About one-fifth of the patients with serious organic heart disease are destined sooner or later to develop auricular fibrillation.

The exact cause of auricular fibrillation is unknown, but two important factors are the type of heart disease present, and increasing age.

TABLE I: THE FREQUENCY DISTRIBUTION OF CHRONIC AURICULAR FIBRILLATION IN THE VARIOUS TYPES OF HEART DISEASE

Type of Heart Disease	Number of Cases	Number With Chronic Auricular Fibrillation	Per Cent
Hypertensive Heart Disease.....	264	57	21.6
Coronary Heart Diseas	177	35	19.8
Rheumatic Heart Disease	119	61	51.3
Syphilitic Heart Disease.....	67	0	0.0
Cor Pulmonale	54	5	9.3
Subacute Bacterial Endocarditis	31	1	3.2
Acute Bacterial Endocarditis....	13	0	0.0
Thyroid Heart Disease.....	9	6	66.6
Calcific Aortic Stenosis.....	9	0	0.0
Obliterative Pericarditis.....	7	3	43.0
Tuberculous Pericarditis	7	1	14.3
Miscellaneous	14	5	35.7
Undiagnosed	19	8	42.1
Total	790	182	23.0%

Patients with fatal rheumatic heart disease have auricular fibrillation in about 50 per cent of the cases, hypertensive heart disease and coronary heart disease in about 20 per cent, cor pulmonale in about 10 per cent, and this complication is very uncommon in syphilitic heart disease and acute and subacute bacterial endocarditis.

The clinical diagnosis of auricular fibrillation is justified in the face of a total irregularity of the heart beat—an irregular irregularity.

Prognosis depends principally upon the underlying heart disease but the disorder itself does reduce cardiac efficiency and is fraught with the hazard of embolism.

Treatment is essentially rest and digitalization, with attempts at conversion to normal by the use of quinidine in patients without serious organic heart disease or congestive failure, in whom the auricular fibrillation has been of relatively short duration and unaccompanied by the dislodgment of emboli.

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Treatment of Arterial Hypertension With Potassium Thiocyanate

HAROLD KOTTE, M.D.

THIS report concerns our clinical and experimental work with thiocyanate in hypertension—a study which was started in an attempt to determine if the therapeutic results from the drug justified continuation of its usage.

The treatment of arterial hypertension with thiocyanate, or sulphocyanate, is not new. Claude Bernard made the first pharmacologic investigations of the thiocyanate salt in 1857, but credit for its introduction into clinical medicine belongs to Wolfgang Pauli, who in 1903 described its sedative properties in nervous diseases, its supposed inhibition of the progress of arteriosclerosis, and its depressor effect in hypertension. In 1908 Bently and LeRoy stated that thiocyanate relieved symptoms of arteriosclerosis and hypertension, which they attributed to the solvent action in deposited calcium salts. Because of toxic effects the use of this drug fell somewhat into discredit until 1925, when Nichols¹ presented a pharmacologic survey and added the favorable results of treatment in hypertensive patients. A year later, Westphal briefly reviewed the action of thiocyanate and reported favorably on its use in hypertension.

From this time on, many reports of the clinical use and toxic symptoms of the drug appeared. Some condemned and some advocated its use. Reports which followed the delineation of the safe but therapeutically effective blood concentration by Barker have been more favorable, yet thiocyanate has never been accepted for inclusion in the N.N.R. by the Council on Pharmacy and Chemistry of the American Medical Association².

PHARMACOLOGY

Thiocyanate normally occurs in the saliva and other gastro-intestinal secretions, but only in small amounts. Once administered, it is widely distributed in all body fluids and transudates, except the spinal fluid, so well that thiocyanate has been used for determinations of the volume of extracellular fluid in the human organism. Its concentration in various organs parallels the chloride distribution and the blood supply of that organ.

The thiocyanate ion is not altered or metabolized in the body and is almost completely ex-

The Author

● Dr. Kotte, Cincinnati, Ohio, is a graduate of the University of Cincinnati, 1937; fellow in cardiology, Cardiac Laboratory, Cincinnati General Hospital; instructor in Medicine, University of Cincinnati College of Medicine.

creted in the urine as such¹. There is general agreement that thiocyanate is not changed to cyanide and that its action is specifically due to the thiocyanate ion and not to the combined action³.

The clearance of the drug by the kidney varies from one person to another and does not always parallel the urea clearance⁴. Because of its relatively slow excretion it is known to have a cumulative effect when continuously administered.

The mode of action of thiocyanate is still unknown. We have found no evidence to support the suggestion of Takacs that the lowering of blood pressure is due to vagal stimulation. Doles believes it acts by decreasing the size of the red blood cells, but his theory that macrocytosis causes hypertension is not tenable. Davis and Barker noted that prolonged administration reduced the blood cholesterol, red count, and serum proteins, but could not explain its action from their experience. Later Barker stated that patients whose red counts were over 4.5 million responded best, but gave no explanation of this observation.

Goodman and Gilman⁵ state that thiocyanate has the properties of iodides and of nitrites. Our observations are in disagreement with the latter statement. Dr. Carl Smith and I have perfused thiocyanate in various concentrations (0.1 per cent, ½ per cent, 1 per cent potassium or sodium thiocyanate) through the isolated rabbit's ear, and have noted no vasodilator, or significant vasoconstrictor, effect in these experiments. Our results did not confirm those of Ellinger, who found that thiocyanate increased, rather than relaxed, the tonus of isolated arterial strips.

Thiocyanate caused little alteration in the blood pressure level of the hypertension experimentally produced in rats⁶ or in dogs⁷.

There are no reports on the effect of thiocyanate on the cardiac output, although these are much to be desired.

Read before the Section on Medicine, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, April 28-30, 1942.

CHART I.
EFFECT OF KCNS ON BLOOD PRESSURES OF
TWENTY SELECTED PATIENTS

	Blood Pressures Before Treatment		Blood Pressures During Treatment		Blood Pressures While on Placebo		Comment
	Range	Average	Range	Average	Range	Average	
1. J.W.	230-210 160-148	215 152	220-175 160-135	198 142	220-205 158-140	208 148	Headache relieved at first; recurred later.
2. F.J.	265-232 140-130	242 136	220-170 130-105	192 120	255-210 145-130	220 136	Drug rash.
3. R.M.	230-200 155-110	220 130	210-170 140-120	189 128	222-205 140-125	211 132	Headaches unrelieved.
4. M.H.	250-236 155-145	246 152	250-210 150-135	228 146	245-230 155-150	239 154	No symptoms.
5. H.L.	270-230 170-150	256 152	260-225 155-135	239 140	235-246 165-150	256 158	No relief headaches, dizziness, GI symptoms.
6. B.G.	240-194 140-115	221 129	236-166 130-105	188 117	235-220 140-127	231 132	Headaches unrelieved.
7. E.H.	240-180 135- 96	219 115	236-166 136- 98	206 119	252-210 135-110	222 116	No change in symptoms.
8. M.B.	270-260 180-160	264 165	240-205 150-135	222 143	252-245 170-152	248 156	Headaches, dizziness improved.
9. A.K.	245-220 145-115	232 129	240-190 140-110	218 118	245-215 140-115	236 126	Headaches disappeared.
10. M.R.	275-256 170-145	262 153	245-225 155-130	234 142	265-255 170-150	259 162	Headaches improved.
11. F.M.	195-165 125-110	182 118	175-148 120-100	167 110	192-165 120-112	178 115	Headaches improved.
12. J.W.	190-165 125-110	180 118	185-150 125-100	164 115	185-170 125-110	175 116	Headaches improved.
13. H.B.	195-175 135-125	190 132	190-150 125-110	173 120	202-182 145-130	198 139	Asymptomatic.
14. V.A.	230-175 130-110	205 119	200-165 115- 96	180 108	238-185 138-110	212 123	General improvement.
15. R.W.	225-205 115-105	214 111	205-185 115-100	198 107	220-200 120-105	211 112	No symptoms.
16. G.M.	215-185 145-125	192 130	205-175 140-120	190 128	210-185 140-125	194 132	Headaches unrelieved.
17. J.D.	160-145 120- 88	150 95	160-138 100- 90	146 96	172-140 120- 92	155 100	No change in nervousness.
18. R.S.	200-155 120-105	165 110	165-140 102- 88	146 90	180-165 112- 97	170 108	Headaches, GI symptoms unchanged.
19. M.R.	190-160 110- 95	172 98	148-130 84- 72	140 78	170-145 90- 75	158 86	Headaches improved.
20. J.L.	175-150 105- 82	158 95	135-115 85- 72	124 79	178-145 110- 80	162 92	Asymptomatic.

The possibility remains that the hypotensive effect of the drug is due to general sedative properties or to depression of metabolism. Friend and Robinson noted that the oxygen consumption of rat livers was decreased when these were suspended in high concentrations of thiocyanate in human serum, (20-30 mgs. NaCNS per cent; no effect from therapeutic concentrations as developed in hypertensive humans.) We have noted no change in the basal metabolic rate in man, either after intravenous administration of sodium thiocyanate in amounts sufficient to raise the blood concentration to a therapeutic range, or after continuous oral medication.

One must conclude from this incomplete pharmacologic knowledge of the subject that there is no ready explanation of the depressor action of thiocyanate.

CLINICAL USE

There is general agreement that thiocyanate lowers the blood pressure in many hypertensive patients, although reports of its efficacy in this respect, and in the relief of symptoms, vary considerably. Barker and his co-workers³ stated that approximately 50 per cent of their patients had a satisfactory response, and noted that sympathectomy increased the sensitivity of some of the refractory cases. Other reports indicate sub-

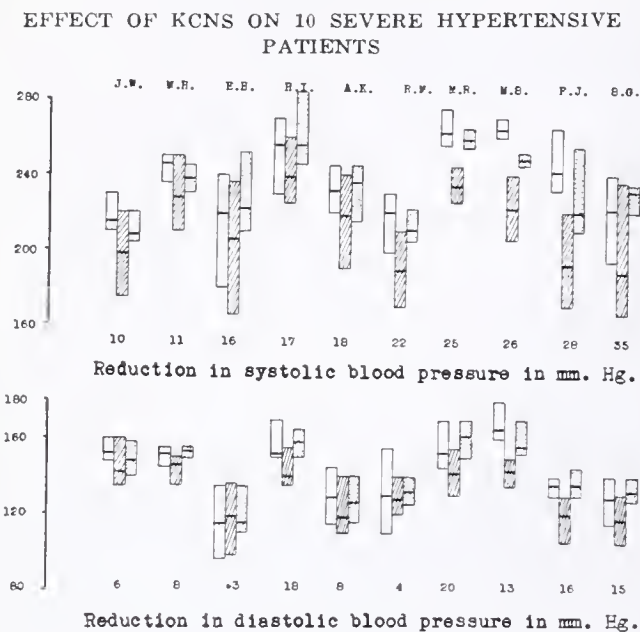


Fig. I

jective and objective improvement in as many as three-fourths of all cases treated.

We have studied 20 cooperative patients with known uncomplicated hypertension of at least two years duration. Most of these patients had been on various forms of treatment, but none had previously taken thiocyanate. Their blood pressures were taken twice weekly (see column I—Chart I), by the same observer, under the

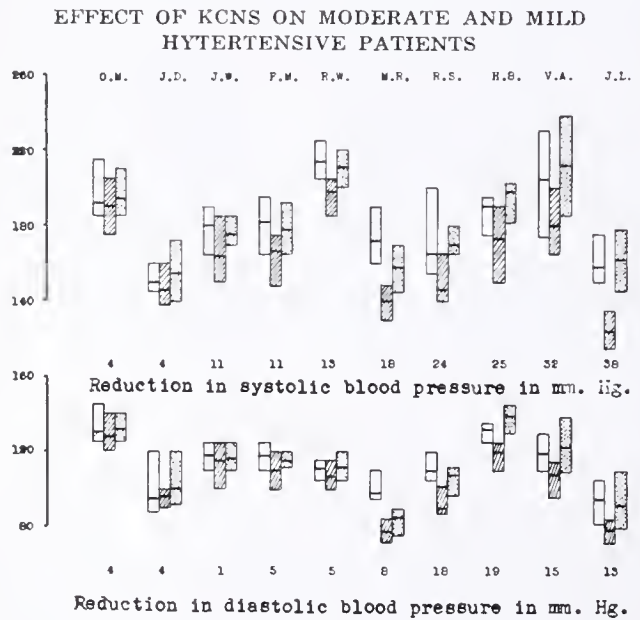


Fig. II

same conditions, with the same technique, and while ambulatory and following their usual routine of life. After a control period of at least six weeks, potassium thiocyanate was started, while all other conditions were kept as constant as possible. No other treatment was given during this period (see column II). After what was considered a satisfactory trial period under the drug (and this was a minimum of eight weeks,

during which time their blood concentrations were in the accepted therapeutic range), the patients were given a lactose placebo exactly resembling the usual enteric-coated tablets. The last column shows their blood pressures recorded in the same manner with these figures selected from that period when thiocyanate had disappeared from their blood.

For purposes of presentation we have divided our cases into severe, and moderate or mild, groups, depending on the blood pressure level and the general clinical picture. Figure I is a graphic representation of the first chart and gives the systolic and diastolic ranges of the ten severe hypertensives, with the average blood pressure represented by the heavy cross-lines. Below each graph is the average drop in systolic and diastolic blood pressure for that patient, the figures used for comparison being those while under treatment and while taking the placebo.

Figure II gives the same data for the moderate and mild hypertensives. There is no significant difference in the response of this group and the preceding, as can be seen from the values below the graph.

We next began hospitalizing these patients to study their responses under more strictly controlled conditions. The first two patients were in the hospital for at least four months before treatment was started. Various drugs including injections of saline, sterile milk, and typhoid vaccine, and kidney extracts of various types were used during this control period. Fig. III shows the blood pressure graph of a severe hypertensive patient who showed a slight drop in the systolic, but no drop in the diastolic, blood pressures. Figure IV shows the depressor effect in a moderately severe hypertensive patient who responded with a fair drop in systolic blood pressure and a somewhat poorer diastolic fall. Figure V shows the response of a mild hypertensive who was under controlled hospital conditions for two and one-half months before treatment with thiocyanate. A fair drop in systolic and diastolic levels was observed. One will note that the blood levels of thiocyanate in all three cases were in the high therapeutic range.

We have observed no immediate significant change in the blood pressure or pulse rate of hypertensive patients after intravenous administration of thiocyanate. In this connection, it has been our general experience that the full extent of the depressor effect may not be manifest the first few weeks of treatment, but may be best seen after the drug has been administered for a somewhat longer period.

Many of our patients had symptoms at one time or another. It is well known that certain symptoms in hypertension bear no direct re-

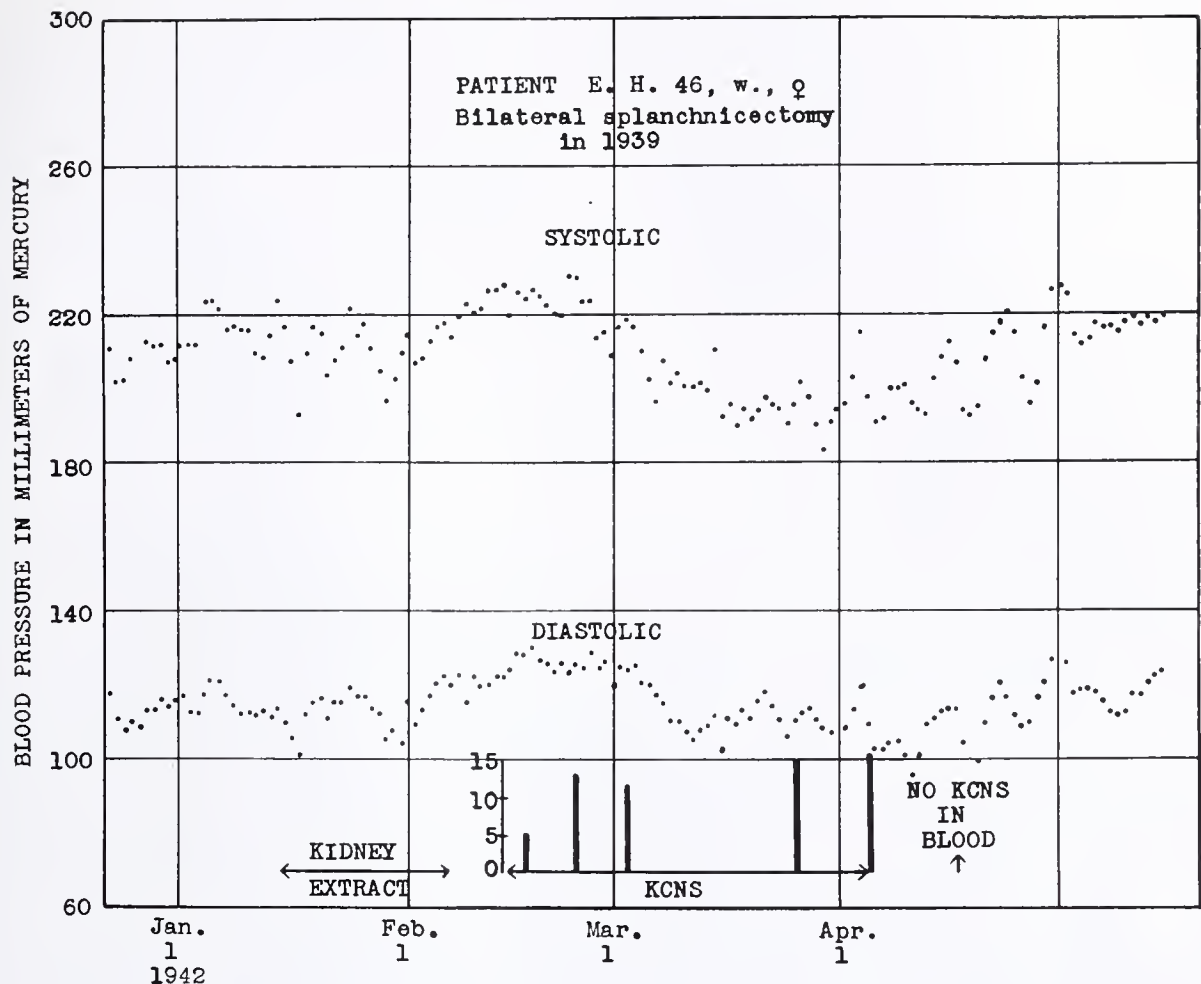


Figure III. The period of treatment with thiocyanate is included by the arrow labelled "KCNS". The scale at the beginning and the heavy markers during this interval indicate the serum concentration of thiocyanate at these various points.

lationship to the level of the blood pressure. Our patients showed the following results.

From Chart II it will be noted that the symptom most favorably affected was headache, which was improved in some patients whose blood pressure showed only slight decrease. Dizziness and weakness were only slightly affected, and nervousness, intermittent claudication, nocturia, dyspnoea on exertion, angina, and gastro-intestinal symptoms were unaltered in those patients who gave these complaints. It is significant that symptoms returned in those patients who showed improvement, once the medication was stopped.

DOSAGE

It is a well recognized fact that the dosage must be individualized depending on the patient's ability to excrete the drug. Failure to recognize this led to many serious results in the early use of thiocyanate. Barker⁹ first modified Schreiber's method for the determination of the thiocyanate concentration in serum and showed that the therapeutically effective and yet safe level lay between 8 and 12 mgs. per cent. We used Barker's technique in gauging the dose necessary to reach this level, modifying it only by employing permanent standards made of Russet

Brown and Yellow Higgins ink in aqueous solution.

Our method has been to start treatment with nine grains of potassium thiocyanate daily and measure the serum concentration at the end of one week. After this the dosage is increased, or

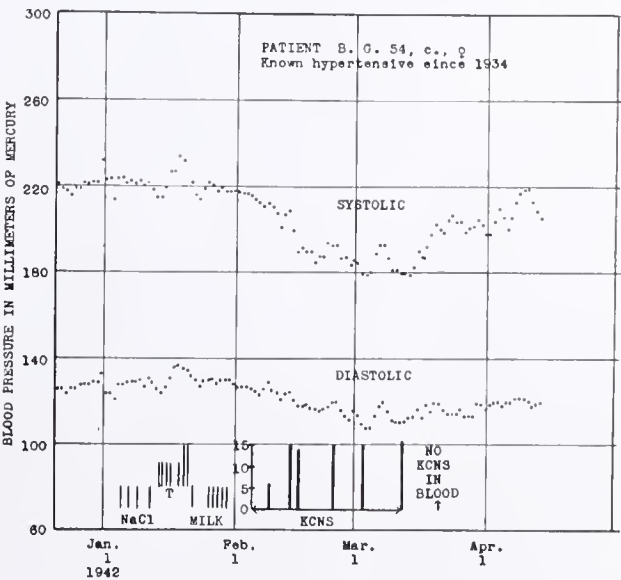


Figure IV. Markings same as for previous graph. No febrile response elicited from the injections of typhoid vaccine or sterile milk.

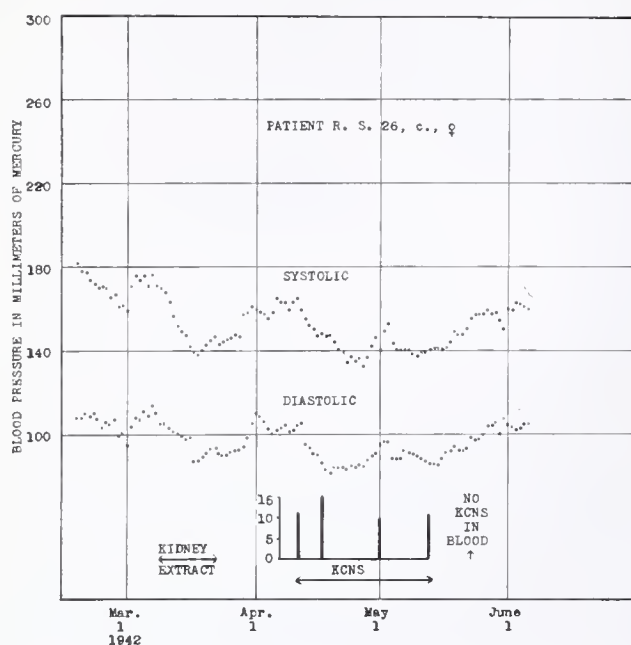


Figure V. Markings same as for previous graphs. This patient showed a depressor effect of the same degree while ambulatory.

decreased, depending on the blood level. As little as 6 grains and as much as 21 grains have been required to reach a blood level ranging between 8 and 15 mgms. per cent. The average dosage in the cases reported was 13 grains daily. Treatment was discontinued in two patients, not in this series, because sufficiently high levels could never be obtained.

TOXICITY

The literature contains many warnings of effects from thiocyanate usage^{10, 11}. The milder symptoms are seen in many patients whose blood level is in the accepted "safe" range. Among the commoner of these are fatigue, increase in nervousness, mild gastro-intestinal symptoms, and a mild form of maculopapular eruption. More severe toxic symptoms may occur when the blood level exceeds 15 mgms. per cent, and usually resemble the pattern seen in experimental animals poisoned with the drug. These may progress to fatal termination unless the medication is stopped. Severe exfoliative dermatitis, edema of the face and glottis, slurred speech, aphasia, confusion, delirium, convulsions, coma, and finally death have been reported. Garvin¹¹ has reviewed the toxic symptoms in the literature and gathered reports of seven deaths. He added another case in which a toxic psychosis began when the blood level was 13.6 mgms. per cent, and which terminated in death nine days later.

The occurrence of angina pectoris and thromboses in various organs has been attributed to the lowered blood pressure in treated patients. It is difficult to decide whether there is a causal or purely fortuitous connection between these

events and administration of the drug. Some authors believe the drug is directly responsible. Diffuse enlargement of the thyroid and myxedema, with normal or slightly lowered basal metabolic rate, have been reported but are rare.

Our patients escaped many of these bad effects, probably due to close observation and to the fact that the series was small. Chart III lists these toxic results. One-third of our patients noted weakness, but this sometimes disappeared during the course of treatment. Two other patients (not in this series) refused to continue treatment because their nervousness was aggravated.

COMMENT

In general, the results of our treatment agree with other reports that thiocyanate will lower the arterial blood pressure of some hypertensive patients, but differ from other reports in that the depressor effect observed has been very moderate. The most apparent effect on an abnormally high blood pressure is reduction of the systolic level; a certain decrease, not always

CHART II.

EFFECT OF THIOCYANATE ON THE SYMPTOMS OF TWENTY SELECTED PATIENTS

Symptom	Number of Patients	Complete Relief	Diminution or Partial Relief	No Effect	Escape*
Headache	16	3	8	4	1
Dizziness	10	2	4	4	
Nervousness	3			3	
Weakness or Fatiguability	3	1		2	

No effect on Claudication, Nocturia, Dyspnoea on exertion, Angina, and Gastro-intestinal symptoms.

No effect on EKG.

*Refers to initial complete remission, but subsequent return, of this symptom.

great, however, was observed in all but two patients. The diastolic level has been less favorably influenced and in almost half the patients has shown no significant drop.

In hypertension one should focus attention not only on the blood pressure level, but also give

CHART III.

TOXIC EFFECTS OF KCNS TREATMENT IN OUR PATIENTS

(in order of severity)

1. Generalized maculo-papular eruption, which appeared when the blood concentration was 17 mgms. per cent.
2. Weakness (one-third of all patients).
3. Increased nervousness, three patients.
4. Nausea, two patients.
5. Dizziness, one patient.
6. Increase in intermittent claudication, one patient.

due regard to cardiac, renal, and cerebral function. Clinical and laboratory observation of our patients did not show that these were significantly improved, insofar as their symptoms and

signs, ophthalmoscopic, urinary, fluoroscopic, and electrocardiographic evidences were concerned.

CONCLUSIONS

1. Thiocyanate will lower arterial blood pressure and relieve symptoms in some hypertensive patients, but only to a moderate degree.
2. The use of this drug should be controlled by frequent determinations of the blood concentration, and it should never be given in those cases in which this cannot be done.
3. Until more is known about the mode of action of this drug, it cannot be recommended for general use in the treatment of arterial hypertension.

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Tuberculosis and the War

France—Food rationing started throughout France on October 1, 1940, when the following foods were restricted: bread, meat, cheese, fats, sugar, milk, chocolate and milled products. Technically other foods could be obtained, but in reality it was difficult to get them. The results of a survey carried on by the Institute des Recherches d'Hygiene on how different families of Paris were feeding themselves showed a total caloric insufficiency of about a thousand calories daily, a calcium deficiency and a calcium-phosphorus imbalance and an insufficient intake of Vitamin A.

Undoubtedly morbidity and mortality from tuberculosis have noticeably increased in Paris. The percentage of rapidly-developed tuberculosis has gone up in an alarming manner. Comparing the figures of the first six months of 1941 with

the corresponding ones in 1939, the mortality from tuberculosis increased 10 per cent.

Four basic diets were prescribed for sick persons in four specific categories. To lessen the ill effects upon persons with active tuberculosis and known lesions, a diet was given which corresponded to their general category, plus a supplementary amount of 45 grams of meat and 15 grams of fat daily per patient. Despite the precaution indicated, the march of tuberculosis up to October, 1941, had been ominously progressive; thus if the present dietary regime continues and the consequences increase, the problem of tuberculosis in France will be exceedingly grave.—Food Rationing and Mortality in Paris, 1940-41, Ramon F. Minoli, Milbank Memorial Fund Quarterly, July, 1942.

Canada—The fall in the death rate from tuberculosis in Canada, which has been so evident for the past quarter of a century, has occasioned in some quarters a false sense of security. Nothing could be more unsound or misleading. A disease that kills nearly 6,000 of the population, leaves at least 30,000 incapacitated, and costs the country directly at least \$8,000,000, annually, is still a formidable enemy and a major public health problem.

If control of tuberculosis is to be maintained in wartime, tuberculosis services must be continued, problems that arise as a result of the war must be attacked and advantage taken of wartime case finding projects. Case finding has kept ahead of treatment facilities, which have been inadequate, and until both are developed to a greater degree, control of tuberculosis is still hidden in the future.

Two of the most important phases of case-finding services available are (1) for the general practitioners to provide an early diagnosis, since this is still the greatest source of cases, and (2) examination of contacts, the next greatest source.

Two opportunities have presented themselves as a result of the war: the X-ray examination of all recruits for the armed forces and case-finding projects among industrial workers, particularly in war industries. Tuberculosis is two and a half times as great in industry as in the general population. Therefore, the control of tuberculosis is an important phase of industrial hygiene.

Emphasis is being placed on retaining the open case of tuberculosis in sanatoria. Every patient who leaves against advice represents a weakness in the tuberculosis control system. The factors involved should be carefully analyzed and every way possible must be sought to remedy conditions in institutions to offset this failure in efficient segregation.—The Control of Tuberculosis in Wartime, G. J. Wherrett, *Can. Public Health Jour.*, Sept., 1942.

Osteo-Arthritis of the Hip

With Observations on Certain Features Which It Has in Common With Charcot's Disease

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OSTEO-ARTHRITIS in any part of the body is often a painful and disabling affliction, but when it develops in the hip, it can make a patient's life completely miserable. He may have to take to a wheel chair, give up his usual duties and become dependent upon others for care and attention. In 1937, Henderson²⁰, the orthopedic surgeon at the Mayo Clinic, said "The etiology of arthritis of the hip is unknown. If our medical confreres could find the cause, and thereby reduce the number of cases and the degree of involvement in these, we would be very much pleased; for our best efforts to date have not produced enough good to make us at all enthusiastic." With this challenge in mind, we began a careful study of this difficult condition some five years ago, and our findings suggested that a complete re-analysis of this disorder in all its known aspects might be helpful at this time.

This disease was first described clinically and differentiated from other hip conditions by Adams¹ of Dublin early in the 19th Century. He gave it the name of Morbus Coxae Senilis. That the disease is of great antiquity, is proved by the writings of Chiare (1853) who described skeletal remains from the ruins of Pompeii; and, of Virchow (1869) who wrote about unmistakable evidence of this condition in the bones of inhabitants of medieval Pomerania. In fact, Smith-Jones (1910) maintained that he had evidence to show that osteo-arthritis of the hip was a frequent affliction of workmen as far back as the Predynastic Era in Nubia (about 3500 B.C.).

THEORIES AS TO THE CAUSE

Many theories have been proposed as to the cause of this disorder; but they divide themselves principally into four groups as follows:

(1) **Vascular Deficiency** (arterio-sclerosis of the blood vessels of the bone marrow and synovia). Wollenberg⁴⁰ produced an overgrowth of the patella in dogs by a circular ligation of the soft parts, and this work was confirmed later on by Pemberton²⁹ and his associates.

(2) **Venous stasis**—Bernstein⁵ produced a degeneration of the articular cartilage of the knee joint in dogs by ligation of the popliteal vein. Moreover, he observed a degeneration of some intervertebral disks with hypertrophy and osteophytic overgrowth in the vertebral bodies after the ligation of certain veins supplying the spinal column.

(3) **Lymphatic obstruction**—O'Reilly²⁸, of the

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British Red Cross Clinic for Rheumatism, believes that some mechanism of lymphatic obstruction is responsible for the changes we find in these joints—"perhaps even a chronic inflammation of the lymphatics."

(4) **Trauma**—Pommer³² first enunciated the so-called functional theory. He stated that it was "wear and tear" which produced the first fibrillation of the cartilage and that any change in the anatomy of any part of the hip would accelerate this effect. This was substantiated by Bauer and Bennett³ who maintain that degenerative arthritis is the result only of the "wear and tear of increasing age and repeated trauma". They deny that inflammation, metabolic disorders or endocrine dyscrasias play any role whatsoever. Burkhardt⁸ and others produced osteo-arthritic changes in various species of animals by damaging the articular cartilage both by physical and chemical means (as for example, by cauterization of the cartilage or by direct injection of weak acids or alkalines). This concept as to the etiology is now widely accepted.

Kling²³, on the other hand, objects to all of these theories because he maintains that the methods used by these investigators were not physiologic and that the agents were not strictly localized. Moreover, he says that although the changes produced may, at times, resemble those of osteo-arthritis, they are not identical to them. In his opinion, constitutional factors explain the individual variations in the onset and progress of the disease and vascular changes play only a secondary role. Any structural inferiority of the cartilage or malformation of the joint surface will predispose to an early development of osteo-arthritis of the hip. He cites age, mechanical factors, trauma and endocrine imbalance (particularly in the thyroid and pituitary) as contributing causes. That endocrine disorders may often

play an important part in hip disease is evidenced by the fact that the literature contains many reports of cases of this condition associated with hypothyroidism⁴, as well as cases of osteo-arthritis of the hip associated with pituitary dyscrasias (viz: acromegaly). Bywaters⁹ found that articular cartilage has a very low basal metabolism rate and that its nutritional requirements are as low as any tissue in the body.

We know that in thyroid deficiency²⁵ bone formation in the femoral head does not proceed normally from a centrally-located and concentrically-enlarging zone of ossification; but, instead a diffuse and irregular ossification occurs with more or less complete replacement of bone. Thus, islands of cartilage remain within the head and these are often large enough to be seen in the X-ray. They are usually situated near the periphery and are connected by cartilaginous extensions to deeper zones where secondary degeneration is apt to begin. Crushing of the diseased epiphysis follows and deformity results.

LYMPHATIC CIRCULATION OF THE HIP JOINT

Henry Fisher¹⁶ showed by extensive experimental work that the synovial cavity is a definite space communicating with the lymphatic system and that synovial fluid is derived from lymph plasma to which mucus is added (and perhaps other substances from special synovial cells). This fluid has two functions:

(1) To lubricate the joint surfaces and to nourish the articular cartilage at its central superficial portion.

(2) To absorb fluid waste products from the joint.

Previously, Mouchet and Nouredine²⁷ had discovered, by many careful anatomical dissections of the hip joint, that lymph vessels run directly from that joint to the deep iliac glands and that there is an intimate network of connections between these glands and the articular cartilage. They came to the conclusion that it is probable that these glands form a focal point for the spread of the disease to the hip joint. Kuhns²⁴ found that a suspension of India ink injected into the hip joint in experimental animals passed directly to the external and common iliac glands. Rouviere³⁵ proved that the synovial membrane is richly supplied by two networks of lymph radicles (subendothelial and subsynovial); and he also found that many lymph vessels traverse the capsule to connect with a plexus running on its external surface.

PATHOLOGICAL PHYSIOLOGY

It is known that bursae, tendon and nerve sheaths and articular cavities are formed from actual or potential spaces in the mesoblast, and it is thought to be quite possible that certain individuals may inherit "inferior joint tissue". Keefer²² proved that the central portion of

articular cartilage has no blood supply, but is nourished solely by the synovial fluid. Haden and Warren¹⁹ have shown that homogentisic acid, a toxic product, results whenever the metabolic processes within the joint are impaired. They maintain that cartilage degeneration is therefore accelerated by any factor which interferes with the proper nutrition of a joint, viz: (1) obesity, (2) low basal metabolism, (3) gastro-intestinal disorders, (4) malfunction of the endocrines or (5) circulatory inadequacy.

Collins¹¹ discovered that when large cysts are present in osteo-arthritis of the hip joint, there is a definite shift to the left in the count of the nucleated neutrophils. He says that this change might conceivably be the result of some "toxic absorption" arising from these cysts.

PATHOGENESIS

It has been clearly defined that the normal function of the hip joints depends upon the free operation of certain intra-articular factors. Stamm³⁷ states that osteo-arthritis does not develop in a joint which is otherwise normal. It occurs only where the physical mechanisms have been altered by trauma. Gilmour¹⁸ maintains that the deeper the socket of the acetabulum, the greater the proclivity to osteo-arthritis. He says that this explains why degenerative changes have been found in such hips at every age from 10 to 70, and why this type of joint is so susceptible to superimposed trauma and infection. Deepening of this socket results in the appearance of two important changes within the joint; namely, a reduction in the supply of synovial fluid with a decrease in the efficiency of the fluid buffer of the joint; and, then a shortening of the joint capsule. Pommer³² states that the closer the head of the femur conforms to the shape of the acetabulum, the slower will be the onset of any osteo-arthritis in the hip.

Often, the actual development of osteo-arthritic changes appears to be related directly to the degree of impairment of function. For instance, when function is fairly well preserved, the X-ray changes develop slowly, whereas, when there is greater interference with the mechanism of the joint, destructive changes occur earlier and may progress to the point where osteophytes interlock between the acetabulum and femur head.

PATHOLOGY

The first description of the structural changes in osteo-arthritis of the hip was given by Sandifort³⁶ in 1793. According to Thomson³⁸, the only definite constant findings are cyst-like areas "which might almost be considered as a pathognomonic sign of this disorder." They are said to be present in all cases, but usually vary in size and distribution. Ely¹⁴ states that the first and fundamental change in this type of arthritis is an aseptic necrosis in the marrow

near the articulation which is followed subsequently by increased vascularization, the formation of fibrous tissue and cystic degeneration. Allison and Ghormley² believe that these cysts contain loose fibrous tissue and A. G. T. Fisher¹⁵ feels that they may be the result of the degeneration of certain heterotopic islets in the cartilage.

Comroe¹² sees the steps in this progressive pathological process as follows:

(1) Degeneration of the central portion of the hyaline cartilage with subsequent cracking (fibrillation).

(2) Formation of pits, erosions and depressions (giving the cartilage a granular appearance).

(3) Proliferation of the cartilage on opposing joint surfaces and margins (production of osteophytes).

(4) Thinning of the cartilage over the femur head and in the weight-bearing areas.

(5) Flattening and change in shape of the femoral head.

(6) Enlargement and deepening of the acetabulum.

(7) Increase in density of subchondral bone with formation of cyst-like cavities (connective-tissue cells filling marrow spaces).

(8) Thinning and eventual disappearance of the joint cartilage.

AGE, SEX AND DISTRIBUTION

Plewes³¹ studied 242 cases of osteo-arthritis of the hip joint over a period of 19 years. In about one-quarter, trauma was cited as the precipitating factor, while an equal number were due to miscellaneous causes. The etiology was unknown in 118 cases. The average age of onset was 48.5 years and there were six cases in males to every five in females. Fifty-three percent were unilateral and 47 percent bilateral. The unilateral cases had an earlier onset (45 years), as a rule, than the bilateral cases (50 years): He observed that cases characterized by a considerable formation of new bone showed less pain, and he proposed the hypothesis that when a painless osteo-arthritic hip is seen, it may be due to the fact that there has been some degeneration in the central nervous system associated with advancing years.

Ray³⁴ noted that osteo-arthritis is equally divided between the sexes, the hip and spine being the sites of predilection in the male, while the knees and fingers show the most pathology in the female. He says that climatic factors apparently play no part in its etiology, as this condition is found all over the world. The joints affected depend somewhat upon the patient's occupation. In fact, Van Breeman³⁹ has gone so far as to say that "every trade has its own form of arthritis (viz: 'barber's shoulder' and bus driver's hip)." Both authors feel that there are more cases of osteo-arthritis of the hip in men because of their greater liability to trauma. Our findings, however, were somewhat at variance with those men-

tioned above. All our nine cases were in housewives and were unilateral (five in the left hip and four in the right). The etiology was unknown in eight cases and one was associated with an old Perthe's disease.

X-RAY FINDINGS

Brailsford⁶ says that the most common findings in these cases is a narrowing of the joint space with the appearance of small, cyst-like cavities in the juxta-articular bone (viz: superior lip of the acetabulum and adjacent head of the femur). Brooke⁷ has stressed the fact that a joint with only slight changes in the X-ray may be much more painful than one with marked lipping and spur formation. He attributes this to the fact that even slight elevation of the periosteum, though not visible in the picture, may cause a great deal of pain. On the other hand, Bauer and Bennett³ have pointed out again that extensive degenerative changes may be present without symptoms of any kind.

COMPARISON WITH CHARCOT'S DISEASE

In many respects, the symptomatology and pathology of chronic osteo-arthritis of the hip resemble the findings in Charcot's disease^{10, 21, 33}. Both conditions are found most frequently in males and both begin most commonly after the age of 40 years. Potts³³ says the early stage of an osteo-arthritic hip presents an identical picture to that seen in Charcot's disease and has often been mistaken for it. However, as the process advances, the masses of new bone in Charcot's become larger and more irregular and extend along the diaphysis of the bone for 1-10 cm. This par-osteal bone formation differentiates the two conditions and is pathognomonic of Charcot's. Kawamura²¹ says that the microscopic pathology is also different.

Charcot's may result from compression or section of an area of the spinal cord or of a peripheral nerve. Potts³³ concluded that "any joint which is deprived of the accurate weight-distributing power of its muscles and of the stabilizing protection afforded by an intact reflex nervous system, may, when subjected to even minor trauma, become a typical Charcot's joint." Eloesser¹³ proved that trauma is an essential factor in this type of joint destruction. He also showed that the addition of an analgesic factor made no difference in the characteristic course of a deforming arthritis. He maintains that there is no reason why Charcot's disease may not develop following lesions of a peripheral sensory nerve as well as after injury of central sensory fibers. The soundness of this viewpoint is borne out by the clinical findings of Philips and Rosenheck³⁰ who came to the conclusion that neuropathies as a result of peripheral nerve injury occur frequently, but are missed in most instances because

some type of disease in the central nervous system is not demonstrable simultaneously.

Moritz²⁶ concluded that all uncomplicated Charcot's joints go through the same definite process of change in this order, with the process beginning in the cartilage and in the zone of calcification between it and the cancellous bone:

- (1) Loss of protective joint sensibility.
- (2) Relaxation of ligaments with consequent increase in joint space.
- (3) Erosion of articular cartilage and intra-articular ligaments.
- (4) Minor marginal fractures with roughening of joint surfaces.
- (5) Sclerosis of denuded ends of bone and of subchondral bone.
- (6) Periosteal proliferation of bone with liping.
- (7) Flattening and condensation of femoral head.
- (8) Erosion of acetabulum.
- (9) Enlargement and destruction of acetabulum.
- (10) Atrophy and absorption of head and neck of femur (when the bones no longer articulate).

All or some of these findings may be present, at one time or another in typical cases of chronic hypertrophic osteo-arthritis of the hip joint as well as in Charcot's disease

SUMMARY

(1) Osteo-arthritis of the hip is a disease of great antiquity. It has been an entity for over 5,000 years, but even today very little is known regarding its etiology or what constitutes effective therapy.

(2) It is a serious disorder because it can turn an otherwise apparently healthy patient into a chronic invalid at a time in his life when he might be expected to make his greatest contribution to society.

(3) The normal function of the hip joint depends upon the free operation of certain intra-articular factors. Any interference with these factors will, with the addition of trauma, predispose the patient to the development of an osteo-arthritis in this joint.

(4) An intimate network of lymphatic connections has been demonstrated between the articular cartilage of the hip and the deep iliac glands. These glands might conceivably form a focal point for the spread of disease from the colon to the hip joint.

(5) The characteristic findings in these hip cases are a narrowing of the joint space and the appearance of small, cyst-like cavities in the juxta-articular bone.

(6) A joint with only slight changes in the X-ray film may be much more painful than one with marked spur formation. The degree of pain is determined largely by the extent to which the periosteum is stretched.

(7) The presence of an analgesic factor does not change the course of a deforming arthritis.

(8) It is possible that the painless type of hip, sometimes seen in *malum coxae senile*, may be due to some degeneration in the central or peripheral nervous system associated with advancing years. This is suggested by its clinical similarity to early cases of Charcot's disease in the hip.

(9) Osteo-arthritis of the hip has many characteristics in common with Charcot's disease of this joint and may at times be mistaken for it. However, in the advanced stages, arthritis can be readily differentiated by the absence of the parosteal bone formation which is considered pathognomonic of Charcot's disease.

(10) The apparent increase in the incidence of chronic hypertrophic osteo-arthritic manifestations in all joints of the body—including the hip—makes it imperative that we, as a profession, take more time with and give greater consideration to this so often disabling disease.

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Report of Four Outbreaks of Epidemic Diarrhea of the Newborn in Ohio

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FOUR outbreaks of a highly infectious and fatal disease, probably identical with that described in the literature as epidemic diarrhea of the newborn, have occurred in maternity hospitals in Ohio in the past six months. The four hospitals affected are located in three widely separated cities; two outbreaks occurred in one city,¹ and one occurred in each of two other cities.

Reports received from the four hospitals indicate that during the epidemic at least 112 infants were taken ill and of these 47 died (a case fatality rate of 42 per cent). Since in most instances sporadic cases of illness, characterized by variable gastro-intestinal symptoms and diarrhea, had been occurring in the nurseries prior to the appearance of severe cases of the disease, it is probable that the reported cases do not represent a complete picture of the extent of the epidemics.

The outbreaks which have occurred recently in Ohio resemble closely outbreaks of epidemic diarrhea of the newborn reported from other communities. The disease is a highly infectious and fatal disease; it is largely limited to infants under one month of age; premature infants or other feeble babies seem more susceptible than normal term babies; the type of feeding has no relationship to the disease—breast-fed as well as artificially-fed infants seem equally affected.

Nothing is known at present regarding the etiology of this disease. Rice et al² have stressed the fact that despite extensive bacteriologic, serologic, and pathologic studies the etiology is still obscure. Studies conducted in connection with the four recent outbreaks in this state also show no consistent findings which give any clue to the cause of the disease. Likewise, epidemiological studies to determine the possible relationship of this disease to other infectious diseases have yielded no information as to its nature. In a study of a series of outbreaks occurring in New York City between 1934-37, Frant and Abramson³ state, "The data indicate that the rates are lowest during the fall and highest during the winter. There is, however, no clear-cut rise in the fall-winter season, thus linking the disorder to respiratory infections prevalent at this period, nor in the spring-summer months so frequently associated with other diarrheal conditions." In the four recent outbreaks in Ohio, one reached its peak in June-July; the two which occurred in one city reached their peaks in October; the

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latest outbreak occurred in the latter part of November and early December.

SYMPTOMATOLOGY

Prompt recognition of this disease and suitable isolation of affected infants are essential to the control of the disease.

In three hospitals, investigations revealed that sporadic and mild gastro-intestinal disturbances associated with diarrhea had been occurring for two to six weeks prior to the development of severe illness among the newborn infants. In the fourth hospital, the outbreak resulted from the admission of an infected infant from a hospital which had, at the time, an outbreak of the disease.

The symptomatology encountered in these four outbreaks is similar to that described in other epidemics. Drowsiness, loss of appetite, and failure to gain have been common early symptoms. Best⁴ noted that these infants, if awakened gave a short, feeble cry. In one of the outbreaks in Ohio, the nursery nurse reported that many of the ill infants gave short sharp cries, which were very different from the usual cry of the newborn infant. Slight elevation of temperature usually occurred, but fever was not a conspicuous finding. Vomiting too was reported, but it was not a prominent feature of the illness. These early manifestations of disease were followed by diarrhea; the stools were watery, usually yellowish-green, and contained no blood or pus. In the severe cases the diarrhea was usually marked, and the infants rapidly became dehydrated and presented a picture of extreme intestinal intoxication and shock. In severe cases, death occurred within a day or two; in less severe, death frequently did not occur for several days. Among those who recovered, convalescence was usually long and stormy.

RECOMMENDED CONTROL MEASURES

Because of the infectiousness and high mortality rate of epidemic diarrhea of the newborn, control measures must be prompt and drastic.^{4,5} Cases should be reported immediately

Note—This paper was written at The Editor's request in view of the recent outbreaks in Ohio.

to the local health department in order that community plans can be made for the control of the disease, and for the care of pregnant women who had planned to enter the affected hospital for delivery.

I. Under ordinary circumstances, the best means of controlling the spread of the disease is to place all newborn infants in the hospital under strict isolation precautions, and to refuse maternity patients admission to the hospital until all patients are discharged and the nurseries and equipment have been thoroughly renovated.

II. In a hospital having adequate personnel and facilities for isolation of patients, it may be possible to control the disease by the segregation of newborn infants in separate units, with separate personnel.

a. Infants ill of the disease should be isolated in a special unit on the pediatric service.

b. Infants who were in the newborn nursery at the time the disease appeared should be considered as exposed, and should be isolated in a nursery by themselves and observed closely for early evidence of disease.

c. An exposed infant who shows any evidence of illness should immediately be removed from the "exposed" nursery and placed in an observation nursery. If this infant later shows definite evidence of the disease, he should be transferred to the special isolation unit on the pediatric service.

d. Infants born after the outbreak appears should be taken from the delivery room to a "clean" nursery. (If possible this temporary clean nursery should be set up in a separate part of the hospital.) Nursing personnel assigned to this nursery should have no contact with the maternity or pediatric services.

e. Physicians should observe strict isolation technique on entering the various nurseries. (If possible some member of the attending staff should be assigned to care for all infants in the clean nursery and should have no contact with other newborn infants.)

f. No infants should be allowed out of the nurseries for breast feeding. The mothers' breasts should be pumped, the breast milk pasteurized, and the milk then taken to the infants in the nurseries.

PREVENTIVE MEASURES

The following measures may assist in preventing further outbreaks of this highly fatal disease.

a. Any mild or ill-defined illness occurring in a newborn infant should be reported promptly to the superintendent of the hospital, and the infant should be placed immediately in an isolation unit until the attending physician can determine the nature of the illness.

b. Physicians and nurses should observe rigid isolation precautions on entering the nursery and on going from one baby to another while in the nursery.

c. Nursery procedures should be simplified and unified as much as possible in order that the limited nursery personnel may have more time

in which to carry out the isolation precautions which are essential to the safety of newborn infants.

d. Visitors to maternity patients should be strictly limited to the husband or to one other adult member of the immediate family. Visitors should not be permitted to sit or put their wraps on the beds.

e. Overcrowding of maternity hospitals is hazardous. If the service cannot be expanded to take care of increased needs, normal mothers and infants should be discharged before the 9th to 10th day. In addition, a community plan for supplying sterile obstetrical packages and home delivery nursing services should also be developed for the care of women who can safely be delivered at home in case the maternity service is filled to capacity.

CONCLUSION

Four serious and highly fatal outbreaks of epidemic diarrhea of the newborn have occurred in nurseries in Ohio in the past few months. In three instances the outbreaks were preceded by sporadic cases of ill-defined illness among the newborn infants; prompt isolation of these sick infants from normal infants might have prevented the outbreaks. In one hospital the outbreak resulted from the transfer of an infected infant to the hospital from an institution where the disease was prevalent; newborn infants should not be transferred from a hospital having cases of this disease to an institution which is free from the infection.

Prompt and drastic measures are necessary to control epidemic diarrhea of the newborn, once it has developed in a nursery. Measures directed toward the prevention of overcrowding of maternity hospitals, and toward the elimination of all unnecessary visitors, will undoubtedly do much to prevent outbreaks of this disease in newborn nurseries.

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Chemotherapy, by local application and internally, is being advocated as a means of reducing infections. This suggests even more conservatism in the extraction of teeth or removal of bone fragments in the treatment of these fractures.—Bert G. Anderson, D.D.S., New Haven, Conn., *S. M. Jour.*, Vol. VI, No. 10, October, 1942.

Ocular Manifestations of Syphilis

CARL J. STREICHER, M.D.

THE particular efforts by the public health authorities in the past few years to acquaint the public with the prevalence of the formerly unspeakable disease, syphilis, have made the private physician more than ever concerned in the diagnosis and control of the disease. This paper is intended to aid the general practitioner in becoming more familiar with certain syphilitic eye signs often present yet frequently unrecognized.

The modern clinician uses all the means at his disposal in arriving at a diagnosis. He has been exposed to the use of the ophthalmoscope during his training period, but it is only by repeated observations of the normal fundus that he can recognize a pathological change. The examination should therefore be part of every general physical examination. The fundus may reveal evidence of systemic trouble before classical symptomatology in numerous diseases, and in the diagnosis of syphilis it may be the only sign. The differential diagnosis of an abnormal fundus finally may rest upon the ophthalmologist, but it must be emphasized that the earliest lesions can very often be found by the careful clinician who learns to use his ophthalmoscope routinely. Before the discovery of the spirochete and the laboratory tests for syphilis, it was by clinical signs and symptoms alone that the disease was established.

Probably because of the ease of laboratory diagnosis many clinical findings are now prone to receive less attention than formerly. That this attitude is impractical, is especially well illustrated in the congenital syphilitic. Although a serologic test may be made at birth on a suspected syphilitic newborn, the test may not become positive until the infant is three months or more of age¹. Most eye lesions of congenital syphilis are late manifestations since the primary stages of the disease are passed in utero, and if the child is born and lives it is in the tertiary stage of the disease². Seventy-eight per cent of these cases at some period have eye signs, and often the eye findings are more consistent and reliable than is the specific serologic test³. If the mother has received prenatal antisyphilitic treatment, the test will probably be negative. Therefore serologically one cannot rule out a diagnosis of suspected congenital syphilis.

Preliminary examination of the infant should include observation for stigmata of congenital syphilis, such as the peculiar physiognomy of a wide depressed nose, pale earthy complexion, evidence of periostitis of long bones, swollen joints,

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signs of deafness, scars about the angles of the mouth, bilateral lacrimal abscess, photophobia, and lacrimation. Sir Jonathan Hutchinson who it is said saw more than a million cases of congenital syphilis, described many of these signs as stigmata of the disease and his name is linked with the triad so often observed in older congenital syphilitics, viz., the triad of interstitial keratitis, notched teeth and labyrinthine disease⁴.

Involvement of the cornea or iris is rare in the early life of the congenital syphilitic. Examination of the ocular fundus however, may be extremely valuable when the history or other clinical signs suggest syphilis. A most careful examination should be done.

A drop of a one per cent homatropine or paradrine hydrobromide solution instilled in each eye will dilate the pupil and facilitate the examination. A glance at the fundus is not sufficient and considerable time and patience is necessary in order to make a thorough examination of the eye grounds. The child should be restrained in a sheet and someone should assist in holding its head still.

The ocular fundus study may offer valuable diagnostic findings in a suspected case, particularly the latent type which may show no stigmata of the disease yet in a certain percentage of cases an only early sign is found in the retinal examination. V. V. Chirkovsky and F. J. Rautenstein⁵ in a study of 231 cases of congenital syphilis report 17 per cent presented signs of chorioretinitis. In 11 of these cases the only evidence of the disease was the chorioretinitis. Klander and Vandoven⁶ reported that in a summary of 532 patients having interstitial keratitis of syphilitic origin, the incidence of chorioretinitis was 8 per cent. It must be admitted that the early observation of chorioretinitis requires considerable study of a fundus even by an expert. It is emphasized that if the retina is regarded suspiciously the ophthalmologist should be consulted. The early type of choroidal lesion of syphilis if found in the periphery of the fundus, and is manifested by pale, whitish-yellow spots with little or no pigmentation. This very

early sign will almost universally be missed unless specifically looked for in suspected cases. This may be the only sign of latent syphilis. Despite active treatment the choroidal lesion may progress to the more often observed fully blossomed choroiditis which is almost pathognomic of congenital syphilis. This latter stage of the ocular infection discloses a diffuse lesion of the fundus characterized by numerous scattered pale, oval, or round areas surrounded by granular pigmented dots, or solid black rings of pigment. So characteristic is the picture that it has been described as the "salt and pepper fundus". The optic nerve head in such a fundus often appears pale and atrophic indicating some degree of optic atrophy. Despite treatment the very early choroidal lesion has been observed to progress to the mature stage⁵. The fundus lesions described cause permanent damage, so that if seen in a quiescent stage in the later years it indicates an infection of long standing. The majority of congenital syphilitic eye lesions however, are late manifestations, inasmuch as the primary infection is contracted in utero, with late signs a result of the tertiary syphilitic process.

The involvement of the central nervous system in congenital syphilis occurs several years after birth, showing its presence in the eye as pupillary changes, ptosis, optic atrophy and optic neuritis. However, the most common late manifestation of congenital syphilis, interstitial keratitis, does not seem to be predicated on the spirochetal invasion of the cornea but rather on an allergic response of the corneal tissue to a sensitization in utero at which time all tissues, even the cornea, demonstrate the presence of the spirochete⁷. Then in the tertiary stage of the disease in which interstitial keratitis occurs, the syphilitic antibodies are released resulting in the corneal infiltration as an allergic response. Spirochetes are not found in the cornea of congenital syphilitic interstitial keratitis so that an allergic theory of its causation may be tenable. The absence of the specific organism in this disease process undoubtedly explains the usually unsatisfactory response to specific treatment, although Klander and Vondoven⁶ report in their series of patients with active interstitial lesions that those who had prompt treatment had better final visual records than those who had received no treatment. Special therapy has no effect on the inactive stage of the infection.

Interstitial keratitis is usually at first a unilateral inflammation but also inevitably the second eye will become involved weeks or months later with or without treatment. The disease is initiated by pain, lacrimation and photophobia. The reaction occurs in the deeper layers of the cornea with blood vessel infiltration and scar tissue formation. In view of the fact the results

are better where specific treatment has been instituted, it is important that, at the onset of the disease in one eye, the occurrence should be expected in the fellow eye later. Treatment should therefore be started vigorously and quickly in order to make the attack less devastating and possibly even avert it in the other eye. The ideal method is to diagnose congenital syphilis early, and anticipate it in the pregnant woman with syphilis and institute strong treatment at once. Inasmuch as interstitial keratitis occurs in about 43 per cent of congenital syphilitics⁸, it is apparent that this complication is the most permanently disabling of any. Providing that the fundus can be studied, 94 per cent of those having interstitial corneal changes will also exhibit associated uveal tract pathology⁹.

Acquired interstitial keratitis of syphilis is quite rare and usually involves but one eye. It is milder and responds readily to specific treatment. It is difficult to differentiate the acquired from the congenital type, but is possible by slit lamp examination¹³.

Pupillary changes occurring in either the congenital or acquired syphilis indicate central nervous system involvement. In this group must not be included changes secondary to uveal and iritic infective processes. A very early sign of syphilis may be anisocoria or unequal size of the pupils. The serology should always be determined in these cases for there may be no other signs of the infection, and in the absence of positive blood, spinal serology should be carefully considered. The Argyll-Robertson pupillary response is one with which all should be familiar. It is almost pathognomic of central nervous system syphilis although cases have been reported of its occurrence in brain tumors, encephalitis, ethyl alcohol poisoning¹⁰. The Argyll-Robertson pupillary syndrome presents pupils which are smaller than normal, a sluggish or absent response to light stimulation, normal reaction of pupils to accommodation and convergence. It would probably be appropriate to mention a proper method of eliciting these findings. For the light response, have the patient in a subdued light and fixate an object at least 20 feet away. Then with a lighted small pocket flashlight or ophthalmoscope light, slowly approach the eye from the side to be tested, shading the light with the free hand. Then as the area of the eye is reached allow the light beam quickly to project on the cornea carefully observing the reaction of the pupil. Repeat with the other eye.

For testing the accommodation convergence reflex hold a small object at five feet in front of the patient and quickly bring it toward and to the nose of the patient, carefully observing the pupillary response. In the acquired forms of syphilis a primary lesion may be located in the

conjunctiva or eyelid and if present, the spirochete can be identified by dark field examination. Secondary ocular manifestations of syphilis include iritis and iridocyclitis, and occur in 4 per cent of syphilis but are 20 per cent of causes of all iritic infections¹¹.

There is no specific identification of syphilitic iritis except the appearance in rare cases of syphilomata at the pupillary border. Optic neuritis, neuroretinitis and disseminated choroiditis are other secondary manifestations. Because of the fact that the serology reaction may be negative in as many as 25 per cent of cases, other signs of syphilis must always be carefully investigated and considered until the possibility is ruled out. Clinically the secondary eye lesions are similar to those caused by focal infection, tuberculosis, rheumatic disease, gonorrhea, and acute infectious diseases. Syphilis may be responsible for 10 to 70 per cent of cases of iritis depending on clientel¹². Wherever one sees a bilateral dacryocystitis the etiologic factor must be assumed to be syphilitic or tubercular until proved otherwise.

The late ocular signs of tertiary syphilis in the acquired disease are similar to those seen in the congenital cases. The age incidence is different. The end results of uveal inflammation are seen as pigmented disseminated, chorioretinitis. The vitreous will often contain numerous large and small floating opacities. There may be a complicated cataract as the result of the diffuse inflammatory process. Gummata occurring on the eyelid, conjunctiva, or in the region of the bony orbit, while uncommon, do occur. Central nervous system involvement may be initiated by the occurrence of diplopia as a result of interference with the cranial nerves usually the third, fourth, and sixth resulting in paralysis of extraocular muscles, ptosis, and pupillary changes. In view of the intensive campaigns of recent years to acquaint the public with the extensive prevalence and debilitating results of syphilitic infection, people have become more cognizant of consequences of dissemination and results of the processes of infection. In most states cooperation is not only desired but is demanded by the authorities in that before marriage can be consummated, the presence of a syphilitic infection must be ruled out by thorough physical examination and laboratory findings.

SUMMARY

Congenital syphilis in almost all instances will at some stage reveal certain eye signs. The acquired form of the disease while not developing eye signs in as high a ratio, exhibits numerous manifestations. This paper is presented in order to familiarize the general practitioner with these ocular signs, the recognition of which may be of

great importance in establishing a diagnosis particularly in early and latent cases.

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Eye Ointments

The use of ointments for local treatment is attracting increasing attention and gaining in popularity. Some of the commonly used ointment bases are incompatible with sulfonamides, or at least have proved irritating. The following formulas for bases have been recommended as overcoming objections to use of ointments: (1) To four parts of sodium alginate add 75 parts of boiling water, emulsify and strain, and then stir until cool. Add 16 parts of anhydrous wool fat, 78 parts of white petrolatum, and one part of sodium chloride dissolved in four parts of water. Sift sulfonamide powder (200 mesh) and make a paste with an equal amount of boiling water before adding it to the base. (2) Incorporate 5 cc. of 5 per cent solution of sylfapyridine in 30 cc. of petrolatum. (3) Incorporate 25 per cent of sulfathiazole in an ozycholesterol-petrolatum base. (4) See blepharitis.

Persistent staphylococcus blepharitis was improved by an ointment of finely powdered sulfathiazole, 1 to 5 per cent in a base of three parts petrolatum and one part hydrous wool fat, massaged into the lid margins and conjunctiva four to six times a day for weeks and then continued at night for months. Patients received staphylococcus toxoid concurrently. The same or comparable ointment is useful in all types of blepharitis and perifolliculitis. Sulfathiazole is used only locally for hordeoli.—C. W. Rutherford, M.D., Indianapolis; Jour., Ind. S.M.A., Vol. 35, No. 12, December, 1942.

Penile Cancer

Report of a Case in a Luetic; Review of the Literature; Discussion and Treatment

VICTOR C. LAUGHLIN, M.D., F.A.C.S.

PENILE carcinoma, epithelioma of the penis, makes up a very small percentage of all human neoplasms. It is probably second in frequency of all skin cancers. It is seldom seen in men of higher social status who practice proper hygienic measures; however, no social stratum is immune. Salvarese² states that this lesion makes up 3 per cent of all cancers appearing in the male. It occurs most frequently in the age period between 50 and 70, but not uncommonly it is found in individuals under 40 years of age. In one series of 7000 cancer patients, cited by Nelson,¹ 0.02 per cent or only 14 cases were cancer of the penis. All age groups were represented in this series. It is estimated that malignant tumor of the penis is responsible for 225 deaths yearly in this country.

CASE REPORT

Mr. J. V., white single male, age 41, sign painter, referred to the Urological Department of Huron Road Hospital, September 26, 1941. Chief Complaint: "Ulceration of the penis—which is growing rapidly." Family History: Negative except that one paternal uncle died of cancer. Personal History: From birth the patient had difficulty retracting the foreskin and exercising proper hygienic measures. In 1919 he had a chancre on the penis, on the outer surface of the dorsum of the foreskin and gonorrhea. He was treated for his syphilis for one and one-half years with anti-luetic therapy, principally bismuth and neosalvarsan. He had no further treatment until 1929 (8 yrs.), at which time, due to some ocular disturbance in the right eye a blood test was taken which showed a positive reaction for syphilis. Treatment was resumed for six months. Present Illness: In May of 1939, he first noticed a small hard lump beneath the foreskin on the dorsum of the glans near the corona. This became progressively larger. A blood examination then was positive for syphilis and antiluetic treatment was again begun and followed intermittently. The lesion was thought to be syphilitic. The following February the growth broke through the foreskin, the patient changed physicians but anti-luetic therapy was continued. The foreskin could not be retracted at this time. The patient traveled extensively, necessitating a variety of different doctors and from all these physicians he continued to receive anti-luetic therapy. The lesion became progressively worse, particularly since January, 1941, becoming a large ulcerative mass which destroyed the distal third of the organ, giving rise to a fetid purulent discharge which was very offensive (Figure I, A & B). At this point the patient consulted Dr. Edward Marshall who recognized and confirmed the diagnosis of squamous cell carcinoma by biopsy (Fig-

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ure II, A). No other therapy was administered before his admission to the hospital. The patient complained of no pain at any time. **Physical Examination:** Argyll Robertson pupils, and the left eye showed a slight external strabismus. The mental state was normal, cooperative and intelligent. The balance of the neurological tests were negative. There were no adenopathies except in the inguinal regions where some of the enlargements represented metastases. The balance of the physical examination was negative.

PATHOLOGICAL REPORT OF BIOPSY

Gross Description: Specimen consists of a mass of tissue from the penis measuring 1 cm. in diameter, 1½ cm. in length, the surface is rough, granular, gray with several grayish white nodules present on the surface. On section, there is a tumor-like mass on the surface with the tissue here yellowish gray and firm. The remainder of the tissue is soft, reddish gray and fibrous.

Microscopic Description: Skin from Penis: Section shows a portion of a large tumor mass completely replacing the skin extending through the entire thickness of the specimen. The tumor consists of irregular infiltrating, invading round and bulbous masses. The cells at the peripheral portions of the masses show large vesicular nuclei and a number of mitotic figures are seen (Figure II, A).

Final Diagnosis: Squamous Cell Carcinoma of Penis.

The patient was admitted to the hospital on September 29 and prepared for operation until October 2. On that date an amputation of the penis was performed through the crura or backward extension of the corpora cavernosa well down on their attachments to the descending rami of the pubic bone. The corpus spongiosum with its contained urethra was dissected free for a suitable distance and brought out into the perineum as a perineal urethrostomy.

PATHOLOGICAL REPORT OF THE AMPUTATED PENIS

Gross Description: Specimen consists of a stump of penis measuring 10 cm. in length, 5 cm. in diameter, weighing 90 grams, covered by skin; the skin is eroded leaving a fungating eroding mass, hemorrhagic in spots the skin around

which is moderately inflamed, firm with the surface ulcerated, the mass measures approximately 7 cm. in length and invades the tissue for a distance of approximately 2 cm. The portion of penis covered by skin measures approximately 4 cm. in length with the skin wrinkled, elastic and soft. On section, the tumor definitely invades the regional skin and corpora cavernosa and the corpus spongiosum. The tissue of the posterior portion shows considerable vascularity, elasticity and is reddish gray in color. There is no apparent tumor tissue present at the line

and pus cells. Sections taken from the proximal end of the specimen show no evidence of tumor present.

Final Diagnosis: Squamous Cell Carcinoma of Penis 5 cm. in Diameter.

The postoperative period was uneventful except for a persistent tendency to suppuration in that portion of the wound where the penis had been removed. This was finally and very rapidly controlled by treating the wound with sulfanilamide powder. A self retaining catheter was left in the newly formed urethra during the convalescent period. The patient left the hospital on the fourteenth day with the wound practically closed, the new urethra functioning well and the voluntary control of micturition uninterrupted, (Figure I, C-D-E-F, six months postoperatively).

Laboratory findings: Positive findings only. Hemoglobin 75 per cent, RBC 3,840,000. WBC 11,150. Spinal fluid—Diagnostic, plus minus; exclusion, one plus. Blood—diagnostic, plus minus; exclusion, two plus.

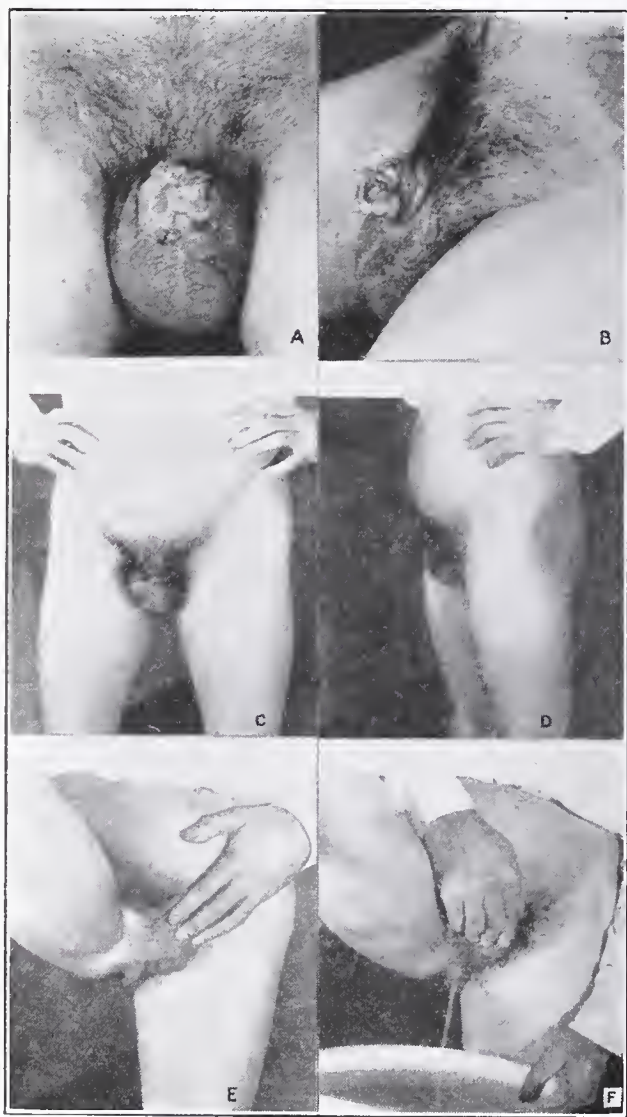
Deep X-ray therapy was instituted for the inguinal and deep pelvic glands on the seventh postoperative day and continued on an ambulatory basis after the patient left the hospital. A total of 2000 r to each four fields was administered.

ETIOLOGY

Several authorities have reported that they have never encountered a case of carcinoma of the penis in a patient who has been properly circumcised in infancy. There is no authenticated case of cancer of the penis in a Jew circumcised in infancy, although Wolbarst reports the occurrence of a case in an uncircumcised Jew. The condition has not been seen in Mohammedans of British India, where circumcision is practiced very early, although it is rather frequent in the Mohammedan Javanese, the Hindu and Chinese where the operation is performed somewhat later if at all. Jews, of course are circumcised a few days after birth, the Hindu within the first year but the Mohammedan Javanese is not circumcised until the age of 8 to 14. This delay bears a direct relation to the increased incidence.

The chief predisposing cause therefore apparently is a long tight foreskin which militates against easy hygienic care and allows urine to be retained and infections as well as irritating substances to constantly bathe and irritate the glans penis and urethra. Trauma has not been proved an etiological factor. Implantation cancer from malignancy of the cervix is to be ignored in the light of our present knowledge. It is thought that syphilis renders one more susceptible to the active factor producing epithelioma. Syphilitic scars and venereal warts therefore, may be a starting point for this condition. Epitheliomas of the penis may begin and develop rapidly following circumcision in adult life.

Other writers deny the relation of circumcision to penile carcinoma. Some (Ewell³) go as far as to say that such factors as nationality, trauma



(No Legend) Fig. 1

of surgical amputation. (Figure II, B). The tumor itself is hard, nodular grayish white with a coarse architecture.

Gross Diagnosis: Squamous Cell Carcinoma of the Penis 5 cm. in Diameter.

Microscopic Description (Figure II, C & D)—Penis: Section one shows a portion of a large tumor mass replacing the skin extending deeply through the tissue of the penis to the levels of the spongy vascular connective tissue. The tumor consists of large masses of squamous cells, rounded in form, in places forming central epithelial pearls. The outer portion is invading the regional tissue. The cells tend to be large with large vesicular nuclei. A few mitotic figures are present. There is considerable necrosis, some hemorrhage and infiltration by round cells

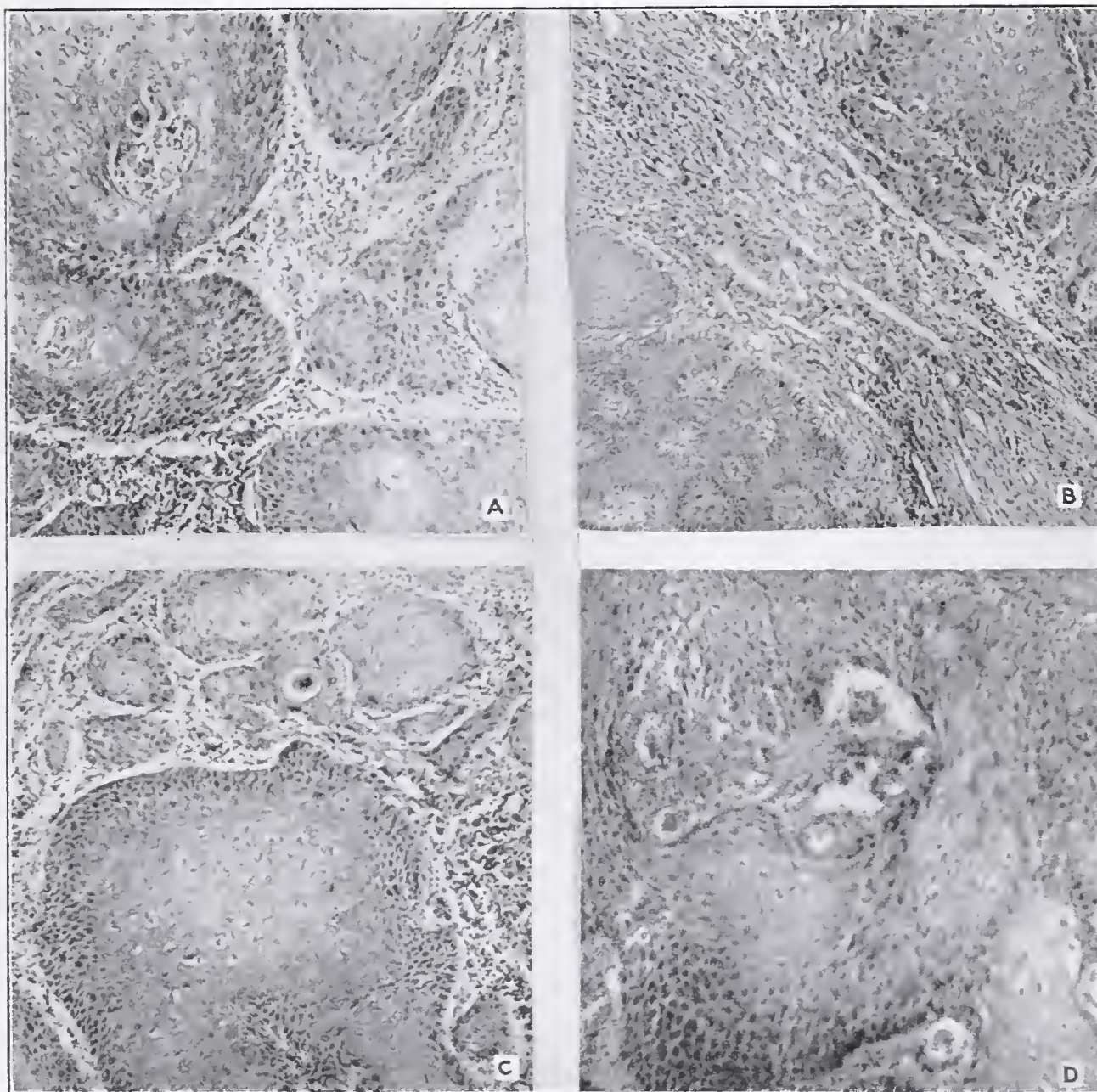


Figure II. A. Initial Biopsy. B. Section through the margin of the growth beyond which is normal tissue indicating the amputation had been accomplished at a point sufficiently distant from the growth. C. and D. General character of the growth.

and occupation are of no importance as etiological factors, nor previous constitutional disease except syphilis.

PATHOLOGY

Two types of penile cancer are usually described. The papillary or vegetative and the flat or infiltrating. The papillary tumor usually begins as a single nodule or as multiple wart-like tumors which grow and coalesce. This type grows rapidly in all directions, is more apt to fungate externally after which it invades deeply. The visible portions of the tumor ulcerate, bleed easily and are quite fragile.

The flat tumor begins as a smooth, hard reddish papule which later ulcerates on its surface. It grows steadily in all directions the ulcer deepening as the tumor grows. As it gets

larger it presents a very hard tumor with a foul necrotic crater.

The malignant tumors of the penis which arise from the glans, 69 per cent in all, originate on the dorsal surface near the corona or on the inner leaf of the prepuce. The growth may be hidden under a long foreskin and remain unrecognized. Such growths take origin from the sebaceous gland of the corona and grow to surround the penis like a collar. Growth may proceed slowly until the glans is destroyed and the corpora cavernosa invaded. Urinary fistulae seldom develop. Lymphatic extension is through the superficial vessels to the inguinal nodes and through the deep lymphatics of the urethra as well as along the dorsal veins of the penis to the pelvic nodes. Both the inguino-

crural and the inguino-abdominal and later the pelvic glands may be involved. Extension is nearly always by embolism through the lymphatics rather than by contiguous growth through the vessels to the nodes. Inguinal nodes are often involved on both sides but not all swollen inguinal nodes are metastases as will be found after treatment when the nodes recede. Metastases to internal organs are rare and occur only in the advanced stage of these growths. The organs involved in these cases are the liver, heart, stomach and nervous system in the order given.

SYMPTOMATOLOGY

The symptoms which the patient may develop will depend upon the amount of pathology present, encroachment upon the urethra and the degree of phimosis. Dysuria, pruritis, discharge, soreness and intermittent bleeding are the principal symptoms. As the tumor encroaches upon the lumen of the urethra there will be interference of the urinary stream. Later the discharges become fetid, composed principally of serum, pus and blood, and are very offensive. Severe pain occurs only in the more advanced stages. Usually the tenderness is slight. When the glans is involved and the pain does become severe it radiates to the groin and perineum. With invasion of the corpora erection becomes distorted or impossible. Rarely in the first stages priapism occurs. Septic complications are frequent and phlegmonous inflammation of the glans or erysipelas may lead to fatal septicemia. The growth may progress slowly over a period of three to five years, the patient finally dying of cachexia, toxemia, sepsis and anemia rather than metastases.

PROGNOSIS

The stage in the development of the lesion at which treatment is instituted governs the prognosis. Provided the glans are not yet involved even permanent cures can be obtained. Unfortunately, as in the case herein reported, a year or more may elapse after the lesion is first discovered before proper treatment is instituted.

As this article goes to press it has been 17 months since the patient was operated. The wound is entirely healed, the adenopathies have disappeared and he is voiding nicely through the perineal urethrostomy (Figure I, E & F). It is to be noted that the pathological examination failed to discover any evidence of tumor at the site of amputation. One is forced to conclude, for the time being, that the inguinal nodes had a septic or bacterial origin.

The papillary or vegetative forms offer a better prognosis than the ulcerative or infiltrating type. In young individuals the prognosis is usually bad due to the rapid growth.

One patient reported by Wrightman⁴ had a

proved carcinoma of the penis for 11 years without operative interference. A bit rough on the olfactory sense I would imagine.

Prognosis is good therefore if the patient is seen early and treated radically.

DIAGNOSIS

Diagnosis of carcinoma of the penis is difficult only in the first stages when the lesion is comparably small. A knowledge of the clinical manifestations, the course of the growth and the history of the case will obviate errors in diagnosis which so often classify these lesions as social diseases.

A positive test for syphilis has many times satisfied the examiner with a diagnosis and permitted a cancer to grow and invade, while the treatment for syphilis failed to heal the unsuspected lesion.

One of the first characteristic objective signs is the rigidity of a portion of the urethra demonstratable by palpation. Of value too is that portion of the complete physical examination which excludes metastases. Inspection of the inguinal areas and rectal examination to determine the degree of extension is likewise important.

The gross appearance of cancers of the penis has been described under pathology. The most accurate method of differential diagnosis is biopsy and the free use of this method is to be encouraged. Lesions of the penis to be differentiated follow:

Cancroid: This lesion is a form of skin cancer of a moderate degree of malignancy. It begins as a small firm tubercle with definite marginal hyperkeratosis. A cancerous ulcer appears early in the center of the lesion. The cancroid has a more dense and pearly appearance than the chancre.

Chancre: The primary luetic lesion has a more regular outline, uniform consistency and well defined borders. Its base and sides are distinctly hard. It gives off a thin comparatively clear secretion in which the spirochaeta pallida is demonstrable. Growth is completed in a very much shorter period than the malignant lesion (18-28 days.)

Chancroid: This is the soft non-syphilitic venereal sore which begins as a pustule on the genitals forming soon after inoculation (one to ten days—usually three to five). It grows rapidly finally breaking into a virulent ulcer discharging pus. The secretion is contagious.

Cornu: This is a horny tubercle of the skin. Occasionally these lesions form behind a phimosis. They are readily differentiated and offer no serious diagnostic problem.

Condylomata Accuminata: These warty excrescences may resemble carcinoma. The lesion has a soft base and show no tendency to ulcerate or bleed unless severely traumatized and infected.

Tuberculosis: Tuberculids of the penis are fortunately rare. They occur in association with evident manifestations of tuberculosis elsewhere.

A bacteriologic examination will be decisive enough to establish the diagnosis.

Sarcomata: These growths originate from the tunica albuginea mostly in young individuals, grow rapidly, and can be differentiated only histologically.

Luetic gummata: Such lesions arise in the cavernous bodies. They are characterized by their multiplicity, rapid development and deep destruction. The ulcers which develop later show a characteristic absence of fetid secretion.

Chronic cavernitis: This lesion is represented by an induration of the cavernous bodies. It occurs mostly in diabetic or gouty patients and is combined with inflammatory changes.

Peyronie's disease⁶: A fibrous cavernositis or plastic induration of the penis connotes an abnormal fibrous thickening or fibroma elaboration limited to the tissue over the dorsum of the penis. The septum sheaths of the corpora cavernosa are involved with extension in an asymmetric manner into the tunica albuginea. The unique character and unequal distribution of this fibrous change ultimately makes for painful angulation and deformity when the penis is erect. The consistency of the plaques are often cartilaginous or even osseous and their borders are well defined.

Erythroplasia: This is a chronic condition characterized by red patches on the glans. It affects principally pavement epithelium. While not a painful lesion they tend to become malignant. They are sometimes spoken of as benign syphiloids.

Leukoplakia	} Occur seldom and rarely offer serious diagnostic difficulties.
Teratomata	
Atheromata	
Cysts	
Granuloma Inguinale	

TREATMENT

Treatment divides itself conveniently into four divisions viz: Prophylactic. Surgical. Radiological and the treatment of the Inoperable Cases.

Phophylactic: Circumcision of all male children soon after birth is recommended. Unfortunately many pediatricians oppose or are indifferent to this procedure. Strict hygienic measures are to be recommended for the uncircumcised.

Surgical: Small growths (2.0 cm. in diameter) require simple amputation. Larger tumors require more radical amputation. The inguinal glands are not removed at the time of the first operation. Such operations consist of either detachment of the crura of the cavernous bodies from the rami or amputation through the crura. The latter procedure is not much less radical though it facilitates hemostasis. The latter operations necessitate a transposition of the urethra, i.e., perineal urethrostomy. The most radical procedure, total emasculation, is now seldom performed.

The interval period may be used for treatment designed to relieve the glandular involvement. One should be slow to pronounce a border-line case inoperable. The case reported herewith is a

classical example of the truth of this statement. The size of the growth and the inguinal involvement, apparently metastases, argued strongly that no form of radical surgery could possibly bring about the desired results. Yet, the pathological examination revealed no tumor at the site of operation and to date there has been no recurrence of any kind.

Radiological: Many physicians insist that radium is of doubtful value in these cases. We share that opinion and feel that it is probably true. X-ray, properly applied is of value particularly for treating the glandular metastases. Treatment by radium and X-ray are of course followed by less loss of tissue and little visible deformity. Erection difficulties will vary accordingly.

Following irradiation, excision of persistent inguinal nodes should be accomplished in a most thorough manner. This should be done before the skin changes resulting from the irradiation become pronounced.

Most penile cancers are squamous cell tumors and hence are radio resistant. Radio resistant tumors are curable by irradiation provided the effective irradiation delivered to every tumor cell is sufficient to permanently destroy it. Eight to ten erythema doses throughout the tumor may be necessary to effect a cure.

Inoperable: Again, one should be hesitant to place a case in this category. An inoperable case may be subjected to fractional X-ray therapy for the purposes of palliation and even under these circumstances a clinical cure may occasionally result. Otherwise the treatment of the inoperable case resolves itself into the best possible care for the sloughing mass.

SUMMARY

A case of penile cancer in a luetic is reported. Probably mistaken for a tertiary luetic lesion, the true nature of the ulceration remained unrecognized for a considerable period of time. During this period antiluetic therapy was administered by a number of different doctors in as many different cities.

The case serves to nicely illustrate how possible such a mistake is.

The incidence, etiology, pathology, symptomatology, prognosis, differential diagnosis and treatment of penile cancer are reviewed.

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Contact Dermatitis

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THE subject of contact dermatitis has become one of vital importance for the increasing number of these cases, particularly at this time when every man is needed, is a form of industrial sabotage. Louis Schwartz has stated that more time is lost from work on account of occupational dermatitis than from any other occupational disease. The increase in the number of these cases is due of course to the industrial expansion taking place, the urge to attain peak development, causing management and labor to stress production frequently at the expense of the "soldiers of production."

To combat the rising cost in man power, the loss in plant efficiency, the Council of Industrial Health of the American Medical Association is sponsoring an Industrial Health program as part of our war effort. Undergraduate and postgraduate courses are being given in our Medical Schools in an attempt to align the curriculum with our war effort. State, City Health Departments, together with Medical Academies are all increasing their activities in this direction, through the creation of committees on Industrial Health. The American Dermatological Association has formed a Committee to study Primary Skin Irritants and Patch Testing; Evaluation of Protective Creams and Detergents used in industry; together with An Industrial Medical Formulary. Industry too is meeting the problem by enlarging and reorganizing their employee health programs.

Industry should not permit materials with a high sensitization index to be used, if they can be replaced by other materials which do not possess such potentialities. New chemicals should be tested before use to determine their sensitizing index.

In the manufacture of explosives the patient frequently becomes a canary or tetryl blond, the yellow dye staining his hands, face, hair, with subsequent development of a dermatitis together with respiratory and abdominal symptoms. War gases take their toll of the employees on the home front, as well as in the front lines as Cole has shown that in the manufacture of these gases, erythematous, vesicular eruptions are produced. The increased use of plastics exposes more employees to phenyl, urea, formaldehyde resins, which chemicals are excellent sensitizers. In the rubber industry most of the accelerators and antioxidants are harmless to normal skin, but hypersensitivity may occur towards any of them.

The expansion of industry with the introduction of new chemical compounds forces the industrial physician to determine whether the chemicals are primary irritants and the optimum dilution for patch testing. The sensitizing index of these chemicals vary tremendously.

By primary irritant is meant a substance producing a primary irritation of the skin under stated conditions, reserving the term allergen for those substances producing the reaction of hypersensitivity. The allergic contact type, eczematous form of sensitization, represents the vast majority of cases of cutaneous sensitization encountered in industry. They are morphologically similar, but differ etiologically. Why individuals become so sensitized is imperfectly understood; however, employers could save on the man hours lost by utilizing facts which are known, namely that individuals with dry skins, whether produced by a mild ichthyosis, a Vitamin A & B deficiency, a hypothyroid should not be employed in sensitizing occupations. Pre-employment patch testing of individuals with specific chemicals might lead to legal difficulties and generally is of no practical importance. However, employees may be screened by adhesive tape, as those sensitive to adhesive being usually polyvalent will frequently react to other sensitizing substances. Other host factors are of course a fungus infection of the feet, together with a trichophytid of the hands, an overworked diagnosis, easily made and usually 88 per cent wrong. A contact dermatitis of the feet, shoe dye dermatitis may likewise produce vesiculation of the palms. Another vesicular eruption of the palms is a **cheiropompholyx** found chiefly during the hot summer months and in those of a psychoneurogenous background. Associated with an atopic eczema there is a family or personal history of asthma or hayfever.

Nummular Eczema sharply defined recurring plaques studded with punctate vesicles found usually on the back of the hands.

Seborrheic Eczema: with involvement of palms and soles.

Virus Diseases: Herpes simplex, Herpes Zoster.

Pustular Bacterids: a toxic reaction from some focus of infection, prone to recur and difficult to eradicate.

Infectious Eczematoid Dermatitis: Impetigo, Ecthyma, Folliculitis.

Yeast Infections: Interdigital red, glazed skin with a collerette of scales frequently associated with an onychia, paronychia, perleche, intertrigo, etc.

Scabies: of long duration and associated with pyodermiens may or may not be readily recognizable until one looks elsewhere for confirmatory

Note—One of a series of editorial summaries on Industrial Medicine in time of war, written at the request of the Editor.

evidence. The various other dermatoses which might be confused with contact dermatitis are perhaps erythema multiforme, drug eruptions, lichen planus, psoriasis, syphilis early and late. Diagnostic confirmation obtained by characteristic lesions elsewhere on the body.

Clinically we are generally unable to distinguish between a contact type eczematous eruption from green soap, solvents or any exogenous substance and must rely on a detailed history together with confirmatory patch tests, to prove our diagnosis. Such a history should elicit the following self evident facts:

1. That the dermatitis was not present before the patient entered the present occupation.
2. That the dermatitis developed during the period of industrial exposure or after a reasonable incubation period.
3. Other workers similarly employed are also affected on analogous sites.
4. The working processes are productive of sensitization.
5. History demonstrates that:
 - a. Patient improves while away from work.
 - b. Recurs again upon his return.
6. Possibility of extra-employment occupations or hobbies as photography, ceramics, painting must be continually kept in mind as similar contact types of eczematous lesions may be produced.
7. It is imperative that one take a detailed personal history as well as an occupational history eliciting sensitizing contactants.

The above industrial commandments seem self explanatory, however, cases occur in which long after removal from original sensitizing agents, either recovery does not take place or recurrences occur which of course are difficult to explain, unless one admits that due to the inflammatory reaction, cellular changes have taken place in which the individual's threshold is lowered and he now reacts to many substances, to which he previously did not react (polyvalent sensitivity). Becker and Obermayer illustrate the question as follows: A person is burned on hands with pure lysol with the development of vesicles. The diagnosis of dermatitis venanata is made and no question of hypersensitivity is brought up. Under treatment the skin condition improves and appears normal. However, when the patient is subsequently exposed to a weaker solution of lysol, an eczematous reaction occurs. The eruption is now obviously due to hypersensitivity. In some cases the patient notes that the inflammation also follows exposure to other chemicals and even soap and water, substances well tolerated by the majority of individuals. The condition is now known as a polyvalent sensitivity. Another explanation offered by Wise is that the previous eruption sensitized the patient to some auto-genous substance to which he is now reacting and which may account for future recurrences (autogenous sensitization). One must keep in mind the stimulating effect of contact dermatitis

on fungus infections, seborrheic dermatitis, the latter being particularly troublesome.

The merits and demerits of the patch test are well described in the literature. However, it is to be emphasized that anyone doing patch tests should have access to the excellent concentration tables as listed by H. R. Foerster and L. Tulipan, Schwartz and Tulipan. The object of the patch test is not to burn the patient but to prove that the employee is hypersensitive to the causative substance.

TREATMENT OF INDUSTRIAL DERMATOSES

The physician must be familiar with the industrial processes and chemicals used in his plant, if he is to correctly detect the sensitizing occupation. He should note in his pre-employment examination all skin defects as acne vulgaris, ichthyosis, seborrheic dermatitis, also all allergic manifestations as asthma, hayfever, eczema. Notations are not enough, however. The physicians should suggest the type of work the employee can safely perform, if we are to cut down the incidence of occupational disease. Having been employed the nurse should instruct the employee in personal cleanliness. More dermatitis is produced through greasy or solvent soaked clothing, together with kerosene, turpentine and abrasive soap cleanups, drying off with the air hose than by their occupations. The employee should likewise be instructed in the hazards of his occupation. The contact type eczematous employee does not usually become more resistant to his sensitizing job, but frequently develops a polyvalent sensitivity and perforce must change his occupation, frequently drifting from job to job because of his injured integument. The industrial physician should endeavor to rehabilitate this man by placing him in a nonsensitizing position.

The treatment of these acute contact, eczematous eruptions is similar no matter what the etiological factor. The patient must be removed from his occupation and wet dressings applied. These wet dressings consist usually of Burowi Sol. KMnO_4 , Boric Acid Sol. until the acute symptoms have subsided and the patient enters the subacute phase, when a Zinc Tale glycerine aa mixture or a calamine lotion can be substituted for the nightly wet dressings. Sensitizing proprietary preparations as butesyn picrate, local anesthetics in ointment form must be avoided. For those chronic cases of long duration stimulating chemicals as ichthyol, naftalan, coal tar together with x-ray can be used.

Recovered cases should remember to protect their skins and their health for months afterwards, as the slightest exposure to some irritating substance may precipitate a similar attack. Sulfonated oils protective creams and lotions should be prescribed for these patients.

The Treatment of Herpes Zoster

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THE treatment of herpes zoster varies with its location and the severity of the process, as well as the age of the patient. Inasmuch as herpes zoster in elderly persons, is quite painful and the skin lesions tend to become necrotic, those individuals should be kept at home or in the hospital and confined to bed. General hygienic measures as well as supportive constitutional measures should be instituted. The younger person may be ambulatory and permitted to continue with his normal occupation.

Local treatment is various. Protection of the lesions from exposure to the air and mechanical irritation gives most relief when the eruption is seen early. Application of flexible collodion or some similar preparation is perhaps the simplest method. The application of thick layers of cotton batting which has been impregnated with zinc stearate powder, seems more effective, particularly when the eruption involves the trunk. If the vesicles are ruptured, mildly antiseptic wet dressings, such as saturated boric acid, at periodic intervals, followed by some drying lotion such as compound calamine liniment serves to afford great relief. At times the lesions may become necrotic. If this occurs, continuous wet dressings must be used until the crusts separate from the underlying skin, following which an antiseptic ointment such as 5 per cent ammoniated mercury or 5 per cent sulfathiazole should be kept in constant contact with the lesions. When there is involvement of the fifth cranial nerve, ulceration of the cornea is not uncommon. This is probably the most serious involvement of the disease. The services of a competent ophthalmologist should be required. The ophthalmic division of the fifth and specifically, the nasociliary branch must be involved in order to produce lesions on the cornea and conjunctiva. The chief manifestation is most probably the severe pain which precedes the eruption and continues throughout the course of the disease. This may be controlled by the use of aspirin, phenacetin or opiates internally or the local application of one of the topical anesthetics. If the patient is seen before ulceration occurs, hot moist compresses should be employed in conjunction with a bland ophthalmic ointment. If ulceration has already occurred, atropine should be instilled in the eye and some anesthetic emolient employed. X-ray therapy seems to be of some value. Seventy-five R, unfiltered, given directly

to the cornea, at five-day intervals is the technique employed.

Complications in the form of keratitis profunda, iritis and iridocyclitis, do occur and these absolutely require specialized attention.

Many forms of therapy have been advocated for systemic treatment. Some of these have proved efficacious, but many have fallen by the wayside as mere therapeutic gestures. One which has had extensive popularity is the use of x-ray therapy to the posterior nerve roots of the involved areas. Both filtered and unfiltered, superficial and deep repeated and single doses have been used to abort or to shorten the course of the disease. I have yet to see any case which I can definitely say that the trouble and the expense involved justified the operation.

Pituitrin has been used for many years in the treatment of both the active form of the disease and in the post-herpetic pain which sometimes follows. Its use in the active form has been discarded, but gratifying results are seen in the treatment of the pain that follows.

Sodium iodide given intravenously, daily, for three to four days, still holds a large number of advocates. The theory is that the iodide is instrumental in dissolving the cellular accumulation about the posterior nerve root ganglion, thereby decreasing the severity of the process and aborting the disease. It is given in doses of 1 gram in 10 cc. of water. Slow administration is necessary inasmuch as a sensation of intense heat or impending disaster results, if given too rapidly.

More recently, vitamin B₁ (thiamine chloride) has had widespread use in the systemic treatment of herpes zoster, going on the hypothesis that since thiamine chloride is the anti-neuritic vitamin, there must be a lowering of the resistance of the involved nerve to infection. Therefore by supplying this vitamin in large amounts, quickly, by the intramuscular route the course of the infection will be shortened. In theory this is sound, but only a few cases show definite shortening of the course of the disease.

Ultra-violet irradiation (1 erythema dose) given at three to four day intervals have been reported as beneficial, but here again, it is doubtful if the procedure materially decreases the time.

In most instances one attack of shingles, as with other contagious exanthemata, gives immunity to the individual for life. There are, however, reported cases of repeated occurrences of the disease.

Dr. Barney was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

Anesthetics in Appendicitis

From the Cleveland Appendicitis Survey. II

R. M. WATKINS, M.D., Chairman, Cleveland*

A brief summary of the study of 19,401 cases of acute appendicitis, appendicitis with peritonitis and appendicitis with abscess has been reported¹ and recently in the Ohio State Medical Journal we have begun a series of more detailed reports from the survey. An explanatory historical note has been published.²

The present report deals with anesthetics, general versus spinal, in regard to which we have rather voluminous figures. Our study covered the twelve years from January 1, 1930 to January 1, 1942 and we have witnessed great changes both in the types of anesthesia used and also in mortality.

The Committee in studying case records recorded the following types: A. General inhalation anesthesia. B. Spinal anesthesia. C. Strictly local anesthesia.

Mortality figures were reported in detail in the publication² and, in summary, show a decline in rate from 6.8 per cent in 1930 to 2.8 per cent in 1941 for all our appendicitis cases. Too many elements enter into the cause of this important decline for us to be able to state that

Table 1
GENERAL (Inhalation) ANESTHESIA

Year	Total No. Cases	No. Receiving Gen. Anesth.	Proportion in Per Cent	Mortality in Per Cent
1930	1438	1337	93.5	6.5
1931	1457	1376	95.4	6.2
1932	1418	1328	93.9	5.8
1933	1412	1328	94.5	5.3
1934	1596	1500	94.6	5.4
1935	1554	1413	91.3	5.0
1936	1646	1466	89.2	3.8
1937	1766	1517	86.2	3.9
1938	1727	1443	83.6	3.6
1939	1702	1477	86.7	3.6
1940	1698	1232	72.5	2.7
1941	1918	1321	68.8	2.6

the type of anesthetic used was responsible. It is of interest however, to note the change in fashion and the trend in mortality.

LOCAL ANESTHESIA

This can be dismissed in a few words. Of the 19,401 cases, only 135 received strictly local anesthesia; the largest number, fifteen, in 1941 and corresponds to the increase in use of other types.

1. Appendicitis in Cleveland, Ralph M. Watkins, Chairman, J.A.M.A. Vol. 120, No. 13, P. 1026-28, Nov. 28, 1942.
2. Drainage in Appendicitis, Ralph M. Watkins, Chairman, Ohio State M.J. Vol. 38, No. 12, p. 1107-8, Dec. 1942.

*The following physicians have been members of the Survey Committee, representing sixteen greater Cleveland Hospitals: Drs. D. C. Darrah, R. M. Hosler, H. H. Pevaroff, J. D. Brett, J. H. Lazzari, C. W. Rotter, S. J. Restifo, H. R. Hathaway, W. A. Boukalik, John Kelker, John Renshaw, A. F. Sydow, B. B. Larsen, J. M. Rossen, John Budd, S. L. Feldman, R. J. McNamee, P. L. Suhay, Geo. Crile, Jr., Fred Kelly.

The lowered mortality is to be noted but, as stated above, is not necessarily the result of the change in type of anesthesia.

The striking feature is the great decline in the proportion of cases in which general anesthesia was used. Early in our study about 19 of every 20 patients were given this type of anesthesia whereas now only about two-thirds receive it. The decline since 1939 is particularly rapid and the smallest, eight, in 1931 and also in 1939. Mortality rates varied from 0 to 45 per cent and for the whole period 27 patients, or about 20 per cent, died. Obviously, only the poorest risks were operated on with this type of anesthetic.

Table 2
SPINAL ANESTHESIA

Year	Total No. Cases	No. Receiving Gen. Anesth.	Proportion in Per Cent	Mortality in Per Cent
1930	1438	79	5.5	8.8
1931	1457	58	4.0	13.8
1932	1418	76	5.3	14.5
1933	1412	68	4.8	10.3
1934	1596	76	4.8	12.0
1935	1554	121	7.8	9.9
1936	1646	166	10.1	6.3
1937	1766	230	13.0	8.7
1938	1727	274	15.2	3.6
1939	1702	281	16.5	3.9
1940	1698	430	25.3	3.5
1941	1918	601	31.3	3.0

The important feature of this table is the considerable increase in the use of spinal anesthetics, especially their increasing popularity in the past two years.

Apparently spinal anesthesia was used in the early years largely in the bad risk patients such as those with respiratory ailments in which it was unwise to use inhalants. The mortality rates were high then as would be expected but with refinements in technic, improvements in the chemicals used and a wider employment in all types of patients, the death rate has dropped appreciably.

It may be noted that the mortality rate in the spinal is still somewhat higher than in the general series. If the spinal rate continues to decline as it is doing it will soon overtake and pass the more slowly declining general rate.

Another point to be remembered is that, even now, spinal anesthetics are undoubtedly preferred if the physical condition of the patient is such that he is not too good a risk for general. This of course raises the mortality rate.

We have no report on other more unusual anesthetics for they have been used so seldom that we did not record them.

Current Thought in Life Insurance Medicine

DONALD E. YOCHER, M.D.

A Mortality Study of Systolic Murmurs

EARL C. BONNETT, M.D.

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MR. EDWARD A. LEW

Assistant Actuary

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Discussion—

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Medical Director, New York Life Insurance Company

J. HAMILTON CRAWFORD, M.D.

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Doctor Bonnett discussed the significance of systolic murmurs over the left side of the chest. He indicated that a mortality study of systolic murmurs, based on standard and substandard life insurance policies issued from 1925 to 1939 revealed an increased death rate even with systolic murmurs which were not transmitted, although he felt that the study of mortality ratios and clinical evidence should justify standard insurance if the systolic murmur is not constant over the pulmonic or apical area, not transmitted, and if there was no history of serious infection or rheumatic fever. He stated further that these murmurs are more serious under age 40 and less significant after the age of 50, and that a history of rheumatic fever is more serious than the other infections. The prognostic importance of cardiac hypertrophy with a murmur was emphasized.

Doctor Campbell indicated that the mortality experience of systolic murmurs in ages 40 to 50 was not unfavorable to the expected ratio.

Doctor Crawford stated that the systolic murmur has been one of the subjects of most controversy since the introduction of the stethoscope, but in his opinion the state of the myocardium is more important than the murmur. He further stated that the presence or absence of hypertrophy is of most significance regardless of the murmur, and that the X-ray is the surest way to determine this. He stated that the apex impulse is not always reliable in determining enlargement, and that he was not much impressed by the transmission of a murmur. He raised the question as to what the mortality ratio would be of cases thoroughly studied from a cardiac standpoint rather than regular insurance groups. He believes that the intensity and quality of the murmur is more important than the transmission. He is not impressed by the importance of the

The Author

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transmission of a murmur because usually the louder the murmur the further it is transmitted. One of the most important of all heart murmurs, he stated, is the presystolic, which is usually heard over a comparatively limited area.

The Effect of Flight on Man

COLONEL EUGEN G. REINARTZ

Medical Corps Commandant

The School of Aviation Medicine, Randolph Field, Texas

Colonel Reinartz stated that the time has come when every practicing physician must understand the effects of flight on man. Some of the outstanding points of his paper follow:

In the First World War 90 per cent of all fatal accidents were due to the defects of man and not the machine. The physical requirements for an aviator are that vision and eye muscle balance must be excellent, depth perception perfect, color vision classed as safe or unsafe. The eye grounds must be carefully scrutinized, the ears, nose and throat carefully examined to determine whether there would be a likelihood of aeritis or aero-otitis and that the general examination must be rigid in every respect and special tests conducted when indicated. Any infection or pathological disturbances of the paranasal sinuses may lead to aeritis. In considering aero-otitis, the patency of the eustachian tubes and hearing must be determined. If the eustachian tube is not patent considerable pain will develop in the ear. The ear drum is forced out during the ascent and is forced in during the descent. In descending, since the drum is forced in, swallowing is practiced by chewing gum to aid pressure equalization.

He stated that some individuals may fly with certain physical defects but not if an unstable psychic make-up is present. Psychic screen tests are first conducted and further tests are later done in order to determine in what place in

Excerpts from papers given at the 53rd annual meeting of the Association of Life Insurance Medical Directors of America, New York City, October 21-22, 1942. Submitted at request of the Editor.

aviation the individual is best suited. Psychomotor tests are also conducted in considerable detail in order to properly classify these individuals.

The action of altitude and acceleration favor anoxia. At altitudes where the atmospheric pressure is only approximately one-fifth of that on the ground surface anoxia with the accompanying increased respiration and pulse, cyanosis, lack of muscle and mental correlation and finally collapse, will develop unless proper precautions are taken. Supplemental oxygen is used to keep the level of oxygen in the tissues high enough for body functions under these circumstances. The tolerance to reduced oxygen at high altitude varies with individuals, but in general when above the level of 10,000 feet for over one-half hour oxygen inhalation is mandatory.

Acceleration, deceleration and centrifugal force affect body fluids and tissues. This is especially significant with reference to sharp "pull-outs" after dive bombing, and it is generally recognized that the effect is due to the lack of blood in the retina and cerebrum and that the rapid movement of this volume of blood to the splanchnic and other areas produces the so-called "black-out" whether partial or complete, depending upon the degree of blood movement away from these areas.

Aero-embolism is similar to that experienced by divers and is caused by nitrogen bubbles in body fluids which is due to rapid ascent. These nitrogen bubbles first appear in the spinal fluid and may produce varying symptoms such as giant urticaria on the trunk, neuritis and edema of the lungs, as well as other symptoms due to aero-embolism. One of the most frequent signs is joint symptoms which may vary from mild to severe. There may also be thermal signs. Treatment consists of recompression and administration of 100 per cent oxygen as long as there is evidence of the disease.

Air sickness is one of the most far reaching and unsolved problems encountered today. In the opinion of Colonel Reinartz, fear and emotion plus acceleration is responsible for air sickness. He believes that a good state of mind and clear air are of prime importance, further, that a bland meal is well tolerated and that an empty stomach should be avoided. Fatigue is also of paramount importance in producing air sickness. Since fear is such an important factor the individual should be acquainted with certain facts in order to prevent it.

He discussed the effects of lowered temperatures, due to high altitudes, upon the nervous system from a psychic standpoint and how the reactions may become serious enough to lead to collapse and death.

A Study of Glucose Tolerance Tests and the Significance of Glycosuria

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Medical Director

PAUL H. LANGNER, JR., M.D.
Assistant Medical Director
Provident Mutual Life Insurance Co. of Philadelphia

Discussion—

WILLIAM G. EXTON, M.D.
Director Laboratory and Longevity Service
The Prudential Insurance Company of America

In the study of glucose tolerance tests with the use of the Exton-Rose method and the one-dose conventional test, moderate carbohydrate diet (fasting) increased the blood sugar more than when a normal unrestricted diet was consumed. High fat diet also causes an increase in the blood sugar.

He stated that at the one hour level, Mathews and others considered 160 mgm. of sugar per 100 cc. normal, 160 to 180 borderline, and over 180 abnormal. In the discussion Doctor Exton suggested that the shape of the curve in the borderline cases is of added value in eliminating suspected cases.

Doctor Dewees also pointed out that although non-diabetic glycosuria is not significant, some cases with normal blood sugar curves and glycosuria developed diabetes. This latter he thought may perhaps be due to technical faults, or that the blood was obtained at a time when conditions were optimum for normal blood sugar. Therefore, he stressed the necessity of careful study in this particular type of case.

Criteria of Prognosis After Head Injuries With Respect to Longevity and Disability

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The Lahey Clinic, Boston, Mass.

Discussion—

PETER G. DENKER, M.D.
Assistant Medical Director
The Equitable Life Assurance Society

Doctor Horrax stressed the importance of the history with reference to the presence and duration of unconsciousness and post-traumatic amnesia. Seventy-two per cent of the individuals with loss of consciousness for three days returned to normal. Type of fracture, presence of foreign body and visual defects influence the prognosis. He emphasized the necessity of early specialized treatment and care before permanent injury develops. Infection and sepsis sometimes complicate, and since foreign particles or splinters may enter a wound, a careful examination, even in minor head injuries, is essential.

Electro-encephalographic examination promises

aid in the evaluation and extent of brain injury. This is especially helpful in the study of post-traumatic headache following industrial injury.

In chronic subdural hematoma severe headache and change in personality are the most frequent findings. Post-traumatic convulsions are common in depressed fractures but may occur in other fractures. Convulsions are sometimes seen in cases where only a scalp wound is sustained and sepsis is the important factor.

In considering prognosis the patient's emotional background must be considered, and in these instances consultation with a trained neuropsychiatrist is paramount.

In the opinion and experience of Doctor Horrax, amniotic membrane and similar substances have not, up to the present, prevented adhesions and resulting convulsions following the indicated surgical procedures.

In his discussion Doctor Denker outlined a criteria for evaluation of head injuries based upon the degree of unconsciousness, classing them as to those unconscious up to 15 minutes, 15 minutes to six hours, and those over six hours or with depressed fractures or operated for subdural hematoma.

The Precordial Electrocardiogram

FRANK N. WILSON, M.D.

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Doctor Wilson emphasized that single precordial leads are not helpful. At least three or more should be taken, and it is his practice to employ six. The location of the distant electrode is not important. He stated that the precordial lead is a semi-direct lead from that part of the heart nearest the electrode. The exploring electrode is placed over the heart on a line perpendicular to the interventricular septum, spaced at intervals from about the right to left cardiac borders. This is advantageous in the study of bundle branch block, especially when involving the right side of the heart when such pathology would not be shown in the standard leads. He illustrated by diagram the importance of the precordial lead in the study of certain cases of hypertrophy, especially involving the right ventricle. For example, its value in revealing right ventricular hypertrophy in congenital heart disease, and axis deviation in the thin and obese individual where the cardiac axis and position is a factor.

In the diagnosis of serious myocardial infarction there must be changes in the Q.R.S. and T segment. If there are changes in the T segment only then there is a small anterior infarction, the prognosis is good and the patient will usually recover from the damage.

The Significance of Small Numbers of Red and White Blood Cells in the Urine

DAVID E. W. WENSTRAND, M.D.

Medical Director

GAMBER F. TEGTMEYER, M.D.

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The Northwestern Mutual Life Insurance Company

Dr. Tegtmeier read the paper of Dr. Wenstrand.

The occasional or accidental finding of white and red blood cells in urine specimens after age 40 is more significant than before this age. The number of white and red blood cells is more significant than the occasional presence of these cells as determined from the standard high-power field, especially when eleven or more white cells are found.

Prognostic Considerations of Hematuria and Pyuria

MEREDITH F. CAMPBELL, M.D.

Professor of Urology

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Doctor Campbell emphasized the importance of obtaining properly collected specimens, and that catheterized specimens in either sex are important for accurate determination of urinary findings. Twenty-five per cent of all urinary tract infections show hematuria, 95 per cent to 98 per cent of all hematuria arise in the genitourinary tract, and 50 per cent of the cases of nephritis show hematuria. He believes that even two or three pus or red blood cells, if persistent, entitles the patient to a careful clinical investigation. Pyuria and hematuria are significant if present in properly collected specimens, but the amount of pus is no criterion of the amount of infection only in a general way. Pyuria, hematuria and pain are cardinal in denoting urinary tract infection.

Sterile pyuria occasionally occurs and may be considered tuberculosis until proved otherwise. The prognosis is more favorable in unilateral renal tuberculosis if nephrectomy is done.

In pyelonephritis, sulfonamide therapy doubles the percentage of cures in non-obstructive urinary tract infections.

Doctor Campbell also stressed the importance of conducting cystoscopic examination in the study of urinary tract pathology, especially in men over 35 years of age.

The variation in the opinion between Doctor Tegtmeier and Doctor Campbell with reference to the significance of the numbers of pus and red blood cells in the urine was discussed by Doctor Ungerleider. He felt that it was probably due to the fact that the cases coming to the attention of Doctor Campbell are suspected of having urinary tract pathology, whereas those coming to the attention of Doctor Tegtmeier were with routine life insurance applicants.

Doctor Ungerleider also discussed the significance of various combinations of hematuria, pyuria and albuminuria.

Military Neuropsychiatric Disabilities and Their Treatment

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These are classed into three general groups: (1) Physical, for example, those with convulsions, paralysis, etc., (2) the emotional group, involving fear, anger, suicide, etc., (3) the military misbehavior group in which the individual feels that he has sustained abuses in connection with military activities. Doctor Strecker stated that in time of war there was no time for a careful classification and usually the case would be classified as organic or functional, whether it involved the central nervous system, or is malingering, and if the stigma can be removed. He related the value that could be obtained from a very brief neurological examination and history. He further emphasized the amount of valuable information that could be obtained by observing the individual rather than by interrogation. It is more essential to note the emotional state regardless of the psychic state one is dealing with. The general appearance, motor attitude, fear or anger, and facial expression are important. The neurological examination should be very simple, noting the posture, gait, eye, patellar and abdominal reflexes and the Romberg sign.

Acute war psychosis occurs in a great percentage of cases, and if treated early with a few days of rest, hot food and fluids, and elemental explanation, a cure can be brought about. Probably every man in war is a potential malingerer and bad news, especially from home, may precipitate the psychosis in some instances. Doctor Strecker emphasized that individuals with conversion hysteria recovered more rapidly in war because the condition was treated immediately. He pointed out that a common kind of conversion hysteria is blindness and amnesia. In these cases the symptoms occur very abruptly and sudden, and if seen at once 70 per cent of them are cured.

The most hopeful way to reduce the incidence of neuropsychiatric disabilities is to start at the source by reasonable care in the selection of inducted men. He believes that two minutes is not enough time for this type of examination and that nearly ten minutes should be used.

Many individuals can be conditioned to the effects of war and in this way reduce the amount of these disabilities. He mentioned sudden frightening illumination and the element of gas and noise as some of the factors which bring about this disturbance.

Chemotherapy in Ophthalmology

Sulfathiazole is said to be better tolerated when there is food in the stomach or when given with dilute hydrochloric acid.

Drug rashes, fever and cyanosis, require interruption of chemotherapy only when severe, with resumption when the symptoms subside.

Acute and chronic hepatitis are infrequent complications; the earliest sign is a yellowish tinge of the previously blue-white sclera. Sulfa drugs should be discontinued.

Blood disturbances, such as acute and chronic hemolytic anemia, acute agranulocytosis, neutropenia, and acute leukopenia with granulocytopenia, prohibit continuance of sulfonamides.

Paresthesias, lowered muscular contractions, neuritic pains, hematuria and anuria with azotemia constitute contraindications to further use of chemotherapy. A red color in urine or feces does not necessarily mean the presence of blood; the drug is a dye.

Retinal hemorrhages, noted in a few cases, are interpreted as petechial in nature, similar to those found in the skin and the urinary and gastrointestinal tracts when using sulfa drugs.

Transient myopia has been found a number of times. Optic neuritis with central scotoma is occasionally reported.

While complications are infrequent and seldom serious in ophthalmic practice, there are some precautionary measures which are important, especially since untoward effects from sulfanilamide are sometimes delayed in appearing and are severe. Sulfapyridine rarely produces symptoms that require its omission, sulfathiazole still less, and sulfadiazine is least inclined to do so.

Patients should be watched for evidences of personal sensitivity to sulfonamides. Frequent examinations of the blood, with the intent of holding the milligram per cent to not above six or seven, is advisable; in diseases of the eye it is seldom necessary to maintain a concentration of more than three or four milligrams per cent. There are arguments for and against combining sodium bicarbonate or citrate with sulfonamides; the urine should be pH 7.4 or above, and alkalis may be needed. An adequate fluid balance must be insured. Patients who do not recover promptly from complications improve on nicotinic acid in doses of 50 mg. three times a day. No ambulant patient should be permitted to drive a car or pilot a plane while taking sulfa drugs, for they slow reaction time and dull alertness; mental confusion is often marked.—C. W. Rutherford, M.D., Indianapolis; Jour. Ind. S.M.A., Vol. 35, No. 12, December, 1942.

Importance of Copper in Nutrition

JONATHAN FORMAN, M.D.

COPPER is present in varying amounts in all living matter and is essential for both plant and animal life. Along with manganese and zinc, it greets the other nutrient ions as they enter the plant cell and directs them to their respective places in its workshop or, in other words, it acts as a catalyst. Copper deficiency in truck crops has been recorded in the peat soils of Michigan, Western New York, and Florida and in many other places throughout the world where vegetables have been grown on such soil. Mineral soils in general are not lacking in copper unless they are unusually sandy and well leached.

Tomatoes, onions, lettuce, and potatoes grown in such peat soils are the vegetables whose copper deficiency present a problem to gardeners. As physicians, however, we are not directly interested in what causes plants to wither and die. Our direct interest is in the vegetable which is good enough to get to market and still lacks the essential of a good nutrition for us.

Assembly of the published data on the variation in the copper content of the more important foodstuffs as reported in the agricultural literature shows that there may be a great difference between two plants that do not look too much unlike. For instance one alfalfa cut for hay had four times as much copper as another; one sample of asparagus, three times as much as another; bananas, three times; barley, seven times; field beans, three times; garden beans, three times; roots of beets, five times; beet tops, two times; broccoli, eighteen times; cabbage, seven times; carrots, three times; cauliflower, three times; celery, three hundred times; corn, four times; water cress, three times; cucumbers, two times; grapes, two times; lemons, eleven times; oats, seventeen times; okra, two times; orange, thirty-one times; pears, two times; peas, two times; potatoes, twenty-four times; prunes, three times; rice, three times; spinach, twenty-six times; strawberries, four times; sweet potatoes, three times; tomatoes, four times; turnips (roots), five times; (leaves), two times; and, wheat, six times.

Copper is necessary in the processes of making hemoglobin out of iron. Hemoglobin formation is a continuous process throughout life. Apparently copper has nothing to do with the assimilation of the iron but it does play a part in its conversion into hemoglobin. If there is not an ade-

quate amount of iron and copper, a nutritional anemia develops. This condition is seen in suckling pigs who are kept in indoor pens and also in calves and lambs who are kept too long on an exclusive milk diet. Cows, sheep, goats and swine likewise become anemic when there is a natural deficiency of iron, copper, or cobalt in the forage and grains upon which they feed. Nutritional anemias of this sort rarely occur in chickens on a practical diet but of course it can be produced experimentally. One such diet for young chicks consisted of cow's milk, polished rice or corn-lime and salt.

On the rice diet, the hemoglobin content dropped 50 per cent in 15 days. A most interesting fact in this connection is that although anemia of nutritional origin is extremely rare, in chickens, it has been frequently observed in embryos in eggs from hens that were on a diet which was typical and practical for poultry. This is usually seen in the fall and winter when the parent stock is getting little sunshine. The conclusion of this whole matter is that if hens do not receive sunshine or do not get cod liver oil in their diet, the transfer of iron and copper to their eggs is reduced. Further, that it is not safe to add compounds of iron and copper to correct the anemia for fear that the iron compounds will unite with the phosphorus, make it unavailable, and so cause rickets. It is sunshine and vitamin D which these fowls need.

Most of us know that nutritional anemias occur in the dog. Such anemias are not infrequent, although the iron requirements can easily be met by a ration containing 10 per cent of meat scraps.

There is considerable evidence available that copper may act as a catalyst in the formation of melanin pigments of the skin and hair. In this day of sustained interest in graying hair, this must be investigated.

The requirements of all animals is greater during pregnancy. The newborn mammal comes into the world with a store of iron and copper to last it through the suckling period.

The copper concentration in the liver of infants is many times greater than in that organ in the adult. The baby comes into the world with enough to last it through the first 12 months of its life. Cow's milk freshly drawn contains only 0.2 to 0.8 parts of copper per million. This apparently is a part of Nature's plan for if milk is contaminated with copper its vitamin C content is markedly reduced. Pasteuriza-

Footnote: This is the fourth of a series of editorial summaries on the so-called trace elements in Conservation, Nutrition, and Human Health.

tion and sterilization increase the copper content especially if done in copper utensils. The most striking effects in this direction is in making cheese in copper vats where the copper content of the cheese may be as high as 18 parts per million.

These stores of copper in the infant must be refilled by the addition of copper containing foods to the milk diet during the first few months of life. The copper present in the human body is estimated at from 100 to 150 milligrams and is almost all to be found in the muscles, liver, and bones with less than four milligrams in the blood. It is nevertheless concerned in the extremely important, fundamental, intracellular oxidation mechanism essential to normal health. The normal requirement for adults is 3.5 milligrams per day. Fortunately, the best sources of copper are the iron-containing foods. In this particular, poultry is superior to beef in its copper content. Iron and copper are about equal in the leafy vegetables, legumes, root vegetables, liver, oysters, molasses, chocolate and cocoa are abundantly rich in copper as well as iron. In the Childrens' Fund of Michigan data, the ratio of copper to iron was 0.43 in the dietary and 1.03 in the retention. Both elements have their greatest excretions in the feces but copper excretion in the urine is twice that of iron.

The diet of the pre-school child contains the foods added during the first year and other foods such as whole wheat bread, lettuce, cauliflower, cabbage, beets, apples, raisins, dates, chicken and lamb—all of which have an appreciable amount of copper. Later the additional amount of copper needed is obtained.

The function of copper in controlling the synthesis of iron-containing enzymes as well as hemoglobin in animal tissue is striking and well known. While it is agreed that copper must be available before iron can be used for the making of hemoglobin, there exists considerable confusion as to the importance of copper in practical human nutrition. Copper deficiencies have been observed in plants and farm animals under natural conditions. More often they have been described in the course of rigidly restricted experiments. The nutrition anemias of infants respond better to iron-copper combinations than to iron alone. This no doubt is due to the fact that as the infant grows older he exhausts the storage of copper with which he came into the world and can not replenish it from the copper-low milk diet. There is very little evidence, however, that in the adult deficiency of copper plays any significant role in the production of anemia. The amount of the metal needed physiologically is small and its distribution in foods is so widespread that it is very difficult to get a natural mixed diet, calorically adequate, which

does not have an adequate supply of this element. This can only happen to those who live on a diet grown almost entirely on soil in a copper-deficient area or theoretically under certain conditions, as yet unknown that might increase the copper requirement. Certainly there is no reason to add copper to our prescription for nutritional anemias provided our patient is on an average diet in which liver is incorporated. Finally one should be on the alert not to cause copper poisoning by administering relatively small amounts of copper. I recently saw a woman who had taken two of the popular iron-copper capsules after each meal for the last twelve years. There may, of course, be patients with secondary anemias who will be helped by the administration of copper. This question deserves an exhaustive study on human subjects from many different areas, with varied dietary habits, and representing a variety of physiological and pathological states. But the fact remains that hypochromic anemias are due in most every instance to a lack of iron, whether it is due to such factors as a deficient intake of food containing iron, faulty absorption, increased loss of blood, or to excessive demands for iron.

The Ovaries

Synthetic estrogen, stilbestrol, bears no chemical similarity to naturally occurring estrogen. It is now being given a clinical trial in several clinics in this country, and seems to be most effective when given orally. It is much more potent than the naturally occurring estrogens.

Progesterone is the hormone of the corpus luteum, and its function is primarily that of differentiating, or causing a secretory change to develop in an endometrium that previously has been sufficiently proliferated by the action of the estrogens and beyond which stage the estrogens continue to exert an effect. This hormone is necessary to proper function of the pregravid endometrium, for the maintenance of the function of the endometrium during early pregnancy, and is probably necessary for proper function of the maternal portion of the placenta during the latter part of pregnancy. It acts synergistically with estrogen and has some influence on the metabolism of the estrogens. Progesterone is used at present in those cases of atypical bleeding from the uterus in which the endometrium shows an insufficient effect from progesterone, and it probably represent substitutional therapy. It is also used in the treatment of threatened abortion.—Edward H. Ryneerson, M. D., Rochester, Minn., *Rocky Mountain M. Jour.*, Vol. 39, No. 12, December, 1942.

Carcinoma of the Suprapapillary Portion Of the Duodenum*

THOMAS C. LAIPPLY, M.D.

A WHITE woman, 73 years old, had four admissions to University Hospitals. The first was in May, 1932, with the complaint of abdominal pain. For over one year she had noticed intermittent pain in the right upper quadrant of the abdomen and epigastric distress following the ingestion of fatty foods. Three days prior to hospitalization the abdominal pain became more severe. She became nauseated and vomited. A diagnosis of acute cholecystitis with cholelithiasis was made. A cholecystostomy was performed; considerable purulent fluid and a large calculus were removed from the gall bladder. Her symptoms relieved, she was discharged from the hospital but was readmitted eight months later because of continued drainage of bile from the cholecystostomy wound. At this time exploration revealed a stone in the common bile duct. Subsequent to its removal the biliary fistula healed and she was symptom free for over five years.

The patient's third hospital admission was in February, 1942. During the preceding four years she had had attacks of epigastric pain which gradually increased in frequency and severity. For four months she had been troubled with anorexia, nausea, vomiting and abdominal distention. Over a period of six months she had lost 25 pounds in weight. Physical examination revealed a well developed, poorly nourished, 73 year old white woman, appearing chronically and seriously ill. Her temperature was 38.5, pulse 110, respirations 24, blood pressure 160 systolic and 95 diastolic. There was a defect measuring 3 by 5 cm. in the upper anterior portion of the thin abdominal wall. In this same region a firm, irregularly nodular mass, 6 cm. in maximum diameter, was palpable. Laboratory examination revealed: urine—trace of albumin, a few white blood cells; blood—10,000 WBC, 2.61 M. RBC, 57 per cent Hgb., BUN 12.8 mg. per 100 cc., icterus index 3, negative Kline exclusion test; X-ray and fluoroscopic examination—gastric retention, deformity and spasm of duodenal bulb, niche 4 mm. in diameter on lesser curvature of duodenal bulb. The interpretation was duodenal ulcer with pylorospasm. An exploratory laparotomy was done and a large infiltrating nodular mass identified grossly as carcinoma was found in what was considered to be the distal portion of the stomach. The regional lymph nodes were definitely enlarged and thought to be the site of metastatic tumor. Because of the patient's poor general condition removal of the tumor was deemed inadvisable and a posterior gastrojejunostomy was done. She tolerated this procedure fairly well and except for the development of auricular flutter her postoperative course was uncomplicated. She was discharged 24 days after operation.

She was admitted to the hospital for the fourth and last time on October 4, 1942. Since the preceding hospitalization abdominal pain persisted but was less severe. Anorexia and weakness were more pronounced. The most significant change in her condition was the development of generalized icterus which gradually increased in intensity. Physical examination revealed a normally developed markedly emaciated, icteric white woman who appeared chronically and seriously ill. Her temperature was 38.6. The mass was still palpable in the upper abdomen. The liver was enlarged, extending 6 cm. below the costal margin. Laboratory examination showed: urine—2 plus albumin, occasional WBC and RBC; bile pigment present; blood—27,750 WBC, 2.65 M. RBC, 50 per cent Hgb., BUN 42 mg. per 100 cc., plasma proteins 4.6 gms. per 100 cc. Soon after hospitalization the patient was thought to have developed bronchopneumonia. Her temperature increased to 40° C., and she died quietly 72 hours after admission.

At autopsy the most significant finding was a partially differentiated adenocarcinoma of the suprapapillary portion of the duodenum with direct extension to the surrounding fibroadipose tissue, common bile duct, stomach and pancreas, and with metastases to the liver and hepatic lymph nodes. Conditions directly related to the tumor included obstruction of the common bile duct and dilatation of the extra- and intrahepatic bile ducts, ascending acute cholangitis with multiple abscesses in the liver, generalized icterus, and bile nephrosis. Other diagnoses were remote gastrojejunostomy, chronic cholecystitis with cholelithiasis, undifferentiated squamous cell carcinoma of the uterine cervix, slight chronic pyelonephritis and chronic cystitis.

The tumor involved the proximal 5 cm. of the duodenum, the proximal 4.5 cm. of the common bile duct, and the intervening fibroadipose tissue. There was direct extension of the tumor into the head of the pancreas and distal portion of the stomach; the tumor in these organs was, however, insufficient in amount to cause any noteworthy gross deformity.

COMMENT

The duodenum is an uncommon site of primary carcinoma. Stewart, Lieber, et al, have published a series of articles dealing with carcinoma of the extrahepatic bile ducts and of the duodenum, in which they have critically analyzed the various clinical and pathological factors of importance in these tumors. In their series of consecutive autopsies the incidence of carcinoma of the suprapapillary portion of the duodenum varied from 0.019 to 0.028 per cent; of the intrapapillary portion of the duodenum from 0.0049 to 0.028 per cent; of the extrahepatic bile ducts from 0.022 to 0.028 per cent. From these figures

*Selected by H. T. Karsner from the Clinical-Pathological Conferences at the Institute of Pathology, Western Reserve University and University Hospitals as the thirteenth of a series of cases to be published under the heading "Case Records Presenting Clinical Problems".

it is evident that primary carcinoma occurs as frequently in the suprapapillary portion of the duodenum as in the extrahepatic bile ducts.

In the above case it is impossible to state with certainty, either from the gross or microscopic examination, which was the primary site of the tumor. The common bile duct and duodenum are involved to an equal degree. In the recorded cases tumors of the suprapapillary portion of the duodenum not infrequently extended to and surrounded the common duct. In no instance, however, was there extension of an extrahepatic bile duct tumor to the suprapapillary portion of the duodenum. Thus the fact that the tumor involves both the common bile duct and duodenum favors its being primary in the latter. Microscopically the tumor is an adenocarcinoma; such a tumor could have arisen at either site.

In order justifiably to classify this tumor as a primary carcinoma of the duodenum, it is necessary critically to evaluate the clinical history.

Carcinoma of the duodenum,^{1,3} in particular that of the suprapapillary portion, shows an equal tendency toward acute and gradual onset. In those of acute onset the signs and symptoms in order of frequency are vomiting, epigastric pain, weakness, loss of weight and jaundice. The early symptoms occurring most frequently in the cases in which the onset is gradual are abdominal pain, dyspepsia, loss of weight and jaundice. A mass in the region of the primary tumor was palpable in 24 per cent of cases with carcinoma of the suprapapillary portion of the duodenum and in 16.6 per cent of those with carcinoma of the infrapapillary portion.

In carcinoma of the extrahepatic bile ducts, the onset is acute in 88.5 per cent and gradual in 11.5 per cent of the recorded cases.² The principal signs and symptoms, irrespective of mode of onset, include jaundice, loss of weight, diarrhea, constipation and nausea. Other less common symptoms are abdominal distention, chills, a sense of weight pressure in the abdomen, flatulency and belching. In no instance was there a clinically palpable mass in the region of the primary tumor.

In general, icterus is a more frequent and earlier symptom in carcinoma of the extrahepatic bile ducts than in carcinoma of the duodenum. Vomiting and abdominal pain, on the other hand, occur more frequently and earlier in cases with the primary tumor in the suprapapillary portion of the duodenum. The presence of a clinically palpable tumor definitely favors the duodenum as the primary site.

In the case presented, the gradual onset, early occurrence of pain, nausea and vomiting, appearance of icterus late in the disease, and the presence of a clinically palpable mass favor the suprapapillary portion of the duodenum as the primary site.

In such cases a correct preoperative clinical diagnosis is rarely made. Even at operation the exact nature and site of the lesion is not always recognized. Early accurate diagnosis of carcinoma of the suprapapillary portion of the duodenum is largely dependent upon a critical evaluation of the early symptoms which appear prior to the onset of intestinal obstruction. These early symptoms are somewhat vague and mild for several months and include indigestion, intermittent attacks of pain, abdominal discomfort, loss of appetite and loss of weight. At this early stage a clinically palpable mass is rarely present and roentgen study is of little help. In later stages the basic signs and symptoms are referable to obstruction of the intestine and biliary passages.

SUMMARY

A case of primary carcinoma of the suprapapillary portion of the duodenum in a 73 year old white woman is presented. The difference between the symptomatology of cases of primary carcinoma of the proximal portion of the duodenum and of the extrahepatic bile ducts is reviewed. The importance of critical evaluation of the signs and symptoms for correct clinical diagnosis and in this case for final anatomical diagnosis is emphasized.

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The Testes

The most important recent advance in knowledge of testicular function has been the synthesis of testosterone propionate. This synthetic male hormone has proved of value in the treatment of male castrates and of certain patients suffering from hypogonadism. Unfortunately, it is being used too widely for the treatment of vague conditions, ranging from "male climacteric" to asthenia. It is extremely difficult to interpret the results obtained from utilization of this substance in the treatment of conditions of this sort. Reports have been published which indicate that in some cases about the same results follow the injection of sterile oil. It should be emphasized, however, that this hormone is valuable when it is properly used, but that unwise administration of it is likely to lead to its discredit. Evidence is not sufficient to suggest that it plays any role in the reduction of the prostate gland.—Edward H. Rynearson, M.D., Rochester, Minn., *Rocky Mountain M. Jour.*, Vol. 39, No. 12, December, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBERCULOSIS AND THE WAR—HERE AND ABROAD

The United States—The world conflict of 1914-18 for the first time revealed tuberculosis as a major problem. From the early discovery of large numbers of tuberculous troops in the French army to the final assemblage of mortality records of the war year in the civilian population of all countries engaged, it was evident that tuberculosis was exacting a great toll, unrecognized in the wars of previous years. There is every reason to believe, however, that long wars accompanied by privation have always led to increase in tuberculosis. Crowding, malnutrition, exposure to infection and hardship of every sort have been considered responsible in different degree.

Fortunately, a quarter of a century of research since the last World War has led to a better understanding of methods for control of tuberculosis. Countries fearing the ultimate outbreak of hostilities, through the tense years preceding their final advent, anticipated tuberculosis as a grave menace and prepared accordingly. But in spite of forewarning and preparation, a rise in tuberculosis mortality rates appears already evident. Modern war is total war. Whole populations are engaged, through accelerated industry as well as actual combat.

In the present World War increasing effort is being made in the United States to avoid induction of soldiers with tuberculosis. Measures ensuring X-ray examination of practically all recruits admitted to the armed forces are in effect.

In the civilian population precautions are being taken against nutritional deficiency, since it is almost universally believed to have important bearing on the problem of resistance to tuberculosis. However, malnutrition may not be the gravest predisposing factor in a rise of tuberculosis. The acceleration of industry, leading to crowded quarters in industrial districts, brought about by the mass migration to industrial centers, has created another opportunity for wide-spread infection.

It is evident that a grave menace exists of another world-wide recrudescence of tuberculosis. Its prevention will require vigorous effort against the spread of infection and all measures possible to maintain a high level of resistance to disease.—Esmond R. Long, *Amer. Rev. of Tuber.*, June, 1942.

Britain—To what extent the tubercle bacillus will repeat its former triumph of a generation ago in Britain cannot yet be properly gauged, but it has taken the initiative and the future

course of events will be greatly determined by the effort put forward now by tuberculosis workers.

Deaths from respiratory tuberculosis increased about 6 per cent the first year of the war and 10 per cent the second, while the increase in deaths from other forms of tuberculosis was 2.4 per cent the first year and 17.6 per cent the second.

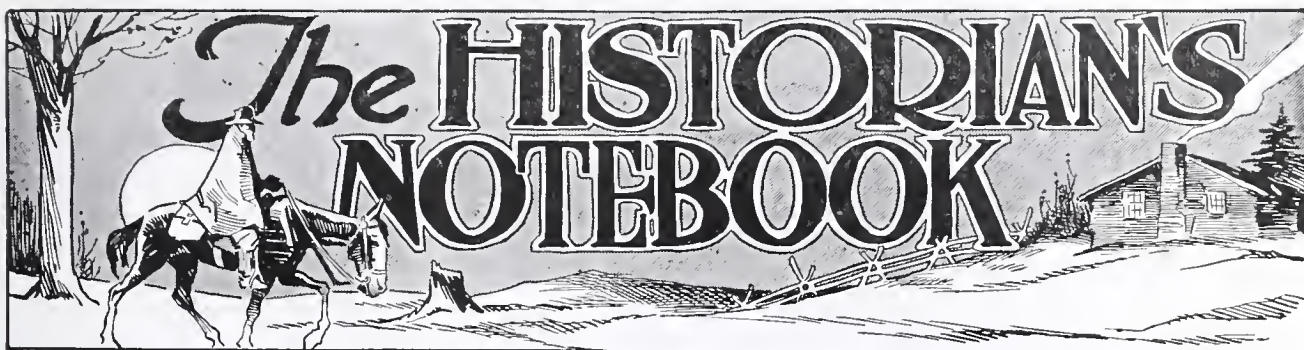
A considerable amount of infection is evidenced among the general population, particularly children, which means that either the infecting dose is large, or the resistance low. Both causes may have operated in the first half of 1941 when the nightly bombing of towns and cities made contact infection probable and frequent. However, if the increase is found to have continued since more normal conditions have prevailed, it will strengthen the idea that there has been a general lowered resistance to infection in children under five. Many factors can have contributed to the lowering of resistance in children among which are change in diet, non-pasteurized milk, blackout and shelter conditions and lack of sleep and rest.

Comparing the trend of events during the first three years of the last war and available figures for World War II, a definite similarity can be traced, although living conditions now are probably more conducive to the spread of tuberculosis. However, there are some marked differences. Tuberculous meningitis has increased sharply, whereas in the corresponding period of the last war it fell almost to the pre-war level. A further point of difference is the small variation between the male and female curves.

These are ominous signs which mean that infection is lurking in hidden places taking its toll, especially in infant lives, and which emphasize the urgency of means for discovering these nests of infection and the need for their adequate control.—F. Heaf and L. Rusby, *Tubercle*, May, 1942.

The Modern Attack on Tuberculosis

Tuberculosis is increasingly becoming a disease of older, occupied men. So much emphasis has been placed on tuberculosis as a serious disease of girls and young women that its greater havoc among men has not received the attention that it deserves. As a result of the more rapid decline of tuberculosis in females in this country there are today 132 deaths among males to every 100 deaths in females, and only at ages ten to thirty is the mortality higher in females.—Harry D. Chadwick, M.D. and Alton S. Pope, M.D. *The Modern Attack on Tuberculosis*.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

An Early Medical Society Publication in Ohio

ROBERT G. PATERSON, Ph.D.

THERE has just come into the possession¹ of the Ohio Committee on Medical History and Archives one of the earliest medical society publications² in the State. The title page is "By-Laws and Regulations of the Twelfth Medical Society of Ohio". It was published at Athens, June 1825; was printed by A. G. Brown and consists of eleven pages.

The Twelfth Medical Society was created under the law of Ohio passed February 26, 1824. This law repealed the law of 1821 and divided the state into twenty medical districts. The title of the Act was "to incorporate Medical Societies for the purpose of regulating the practice of Physic and Surgery in this State." A preamble stated that "Whereas, well regulated medical societies have been found to contribute to the diffusion of true medical science, and a correct knowledge of the healing art.—Therefore be it enacted by the General Assembly of the State of Ohio".

The twelfth district was designated in the law to be comprised of Gallia, Meigs, Athens and Washington Counties, and Chary Perkins, John Cotton, S. P. Hildreth, Morris German, Columbus Bierce, Eli Seigler, Jacob Kettridge, Ebenezer Bowen and George N. Gilbert and their associates were named to constitute the twelfth district society. The law specified that each of the twenty districts should hold their first meeting on the last Tuesday in May at designated places. The meeting place for the Twelfth District was to be Athens.

In accord with the provision of the law the Twelfth District Medical Society met in Athens in May 1825. Regular members listed were John Cotton, Samuel P. Hildreth, Morris German, George N. Gilbert, Ebenezer Bowen and George Bowen from Washington County; C. F. Perkins

The Author

● Dr. Paterson, Columbus, Ohio, is Executive Secretary, Ohio Public Health Association; Secretary Ohio Committee on Medical History and Archives.

and C. Bierce from Athens County; Fenn Robinson, Eli Sigler, and James S. Hibbard from Meigs County; Frederick Schorch, Nathan H. McIntosh, Zattu Cushing, and Rodman from Gallia County.

These members proceeded to elect officers as prescribed in the law. Dr. John Cotton, president; Dr. Chauncey F. Perkins, vice-president; Dr. Columbus Bierce, secretary; and Dr. Samuel P. Hildreth, Treasurer.

It was also provided in the law that each district should elect a board of censors of not less than three nor more than five members. The twelfth district society elected a board of censors of five members: Chauncey F. Perkins, C. Bierce, Ebenezer Bowen, S. P. Hildreth and Morris German. The society also elected honorary members as follows: Dr. Eliphaz Perkins, Ezra Walker, Ethan Stone, Jonas Safford, and Fuller Elliott.

The members, officers, censors and honorary members are printed on page 2 of the pamphlet.

On page 3 begin the By-Laws and Regulations as adopted by the Twelfth Medical Society of Ohio. Chapter I section 1 relates to meetings. According to law it was provided that the Society should meet semi-annually on the last Tuesday of May, designated the annual meeting, and the first Tuesday in November, designated the semi-annual meeting. Five fellows were to constitute

a quorum and every fellow was required to attend all meetings under a penalty of three dollars for every such neglect.

Section 2, Article 1, Order of Business provided for the reading of the proceedings of the last stated meeting and the report of the censors. Article 2 provided for the election of officers at the annual meeting; Article 3 provided for reports of committees; Article 4, consideration of alterations in the By-Laws and Regulations; Article 5, reception of any propositions conducive to the welfare of the Society; or the general interest of medical science; or any other business relative to the healing art; Article 6, the presentation of a discourse or dissertation on some medical subject delivered by a previously designated fellow.

Section 3 related to resignations; Section 4 to expulsion; Section 5 to consultation; Section 6 to admission, and Section 7 to irregular practice.

Chapter II relates to the duties of the officers.

Chapter III deals with examinations and licenses.

Section 1 provides for a meeting of the board of censors. Section 2 relates to candidates and their qualifications. It was stipulated that the candidate for examination by the board of censors shall have acquaintance with Latin and Greek; "shall have studied three full years under the direction and have attended the practice of some reputable physician or physicians, surgeon or surgeons, as the case may be, during which time he shall have studied attentively the most approved authors in Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Midwifery and the Theory and Practice of Medicine; which it shall be the duty of the censors to publish once in three years—Provided, however, that if such candidate shall have received a degree from any regular collegiate institution within the United States or elsewhere, he shall be required to have studied only two years".

The censors were to satisfy themselves as to the qualifications of each candidate; of his moral character and to examine him in the subjects prescribed by law. A fee of ten dollars was to be collected by the secretary. A license was then to be issued to the candidate. The form of the license is printed on page 11 and is as follows:

"State of Ohio
Twelfth Medical Society
As By Law Established

To all, to whom these presents shall come,
Greeting:

We do hereby certify that _____
is admitted a Fellow of this Society, and is entitled to all its privileges, honours and immunities. And we do hereby recommend him to the

Public, as a person well qualified for the practice of Physick and Surgery.

Witness, the President, and Seal of the Society,
this _____ day of _____ in the year of Our
Lord, one thousand eight hundred and _____.

President

Attest,

Secretary"

This license form was printed by Isaac Maxson, Printer.

Chapter IV relates to "Orders" which were a series of eleven rules governing the conduct of the members at meetings.

Thus closes one of the earliest of "Ohio Medical Incunabula." The Ohio Committee on Medical History and Archives is waiting for the Proceedings of the Medical Conventions of Ohio held in 1821 and 1831 to come to hand.

1. Purchased by the Dr. N. R. Coleman Fund, Ohio State University from Schuman's, 20 East 70th Street, New York City.

2. The earliest previous medical society publication in the files of the Archives is "The Proceedings of the Medical State Convention Held in Columbus December 10, 1827. Printed by Adam Peters, Zanesville, 1828".

The earliest record of a medical society seems to be the minute book of the Thirteenth District Medical Society beginning March 25, 1824 at Lancaster, Ohio, an account of which was given by Dr. George O. Beery in the Historian's Notebook, Ohio State Medical Journal, V. 33, No. 8, August 1937, pp. 891-5.

In "A Check List of Ohio Imprints 1796-1820", issued by the Ohio Historical Records Survey, Columbus, Ohio, 1941, entry No. 409 lists "An Eulogium on the late Dr. George Wilson, delivered on the 5th of November, 1818, in the Presbyterian Church, Steubenville, before the medical society for the 5th district, Ohio, and a numerous assemblage of ladies and gentlemen of said town and its vicinity. By Joseph Doddridge, Steubenville: Printed by James Wilson. 1818. 24 p". Copies of this address are reported by the Library of Congress and the University of Pennsylvania. There are none in Ohio. This is undoubtedly the earliest publication in the State connected with a medical organization. Internal evidence leads to the conclusion that the first medical convention of Ohio held in Columbus, Ohio, June 4, 1821, must have published its proceedings. However, there is no record of such proceedings being held by any library in this country.

Prize for Essay on Urology

The American Urological Association is offering an annual award not to exceed \$500 for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. The selected essay (or essays) will appear on the program of the meeting of the American Urological Association, May 31-June 3, Hotel Jefferson, St. Louis, Mo. Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tenn., on or before March 1.

Proceedings of the Council

Industrial Health Program Approved; Budget for 1943 Adopted; Plans for 1943 Annual Meeting Reviewed at Meeting Dec. 13

A regular meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Columbus, on Sunday, December 13, 1942, with the following in attendance: President McCormick; President-Elect Sherburne; Past-President Paryzek; Treasurer Beer; Councilors Schriver, Noble, Brindley, McNamee, Rutledge, Lincke, Swan, Micklethwaite, Harding, Knoble; Dr. Forman, Editor of *The Journal*; Executive Secretary Nelson, Assistant Executive Secretary Saville; Director of Public Education Aszling.

On motion by Dr. McNamee, seconded by Dr. Schriver and carried, the minutes of The Council meeting held on September 20, 1942, were approved.

The Executive Secretary submitted the following membership statistics: Total membership of the State Association as of December 13, 1942—6,714 consisting of 5,477 paid members and 1,267 members in military service whose dues have been waived or rebated; compared to a total membership of 6,604 on December 13 and December 31, 1941, of whom 278 were military members.

WAIVER OF 1943 DUES

Following a general discussion The Council, on motion by Dr. Brindley, seconded by Dr. Paryzek and carried, adopted the following resolution with respect to waiver and rebating of State Association dues for 1943:

“Resolved, That any member of the Ohio State Medical Association who has left or leaves his present practice to enter the Army, the Navy, the United States Public Health Service, or other full-time Federal Government Service shall be entitled to waiver or rebate of his 1943 Ohio State Medical Association dues; and

“Resolved, That the Executive Secretary on January 1, 1943, shall be authorized to automatically transfer to the 1943 Ohio State Medical Association roster of members in good standing the names of members carried on the 1942 membership rolls through waiver or rebate of dues, providing such physicians are still on duty with any one of the government services enumerated above, without requiring waiver certificates for the year 1943 for such members from county society secretary-treasurer.”

REPORT OF THE COMMITTEE ON AUDITING AND APPROPRIATIONS

Following reports by members of The Council on activities and visits to their respective county medical societies, The Council went into executive session for the purpose of discussing finances of the State Association and adopting a budget for 1943. At the executive session Dr. McNamee, chairman of the Committee on Auditing and Appropriations, reported on the financial condition of the State Association and submitted the following budget for 1943, which on motion by Dr. McNamee, seconded by Dr. Micklethwaite and carried, was adopted:

BUDGET FOR 1943

Ohio State Medical Journal.....	\$11,000
Executive Secretary, Salary.....	6,300
Executive Secretary, Expense.....	800
Asst. Exec. Secretary, Salary.....	4,800
Asst. Exec. Secretary, Expense.....	600
Stenographers, Salaries.....	2,940
President, Expense.....	500
Treasurer, Salary.....	300
Council, Expense.....	900
Public Relations Committee.....	1,500
Director, Bureau of Public Education, Salary.....	3,600
Director, Bureau of Public Education, Expense.....	500
Bureau of Public Education, Operating Expense.....	1,500
Committee on Education.....	1,200
Miscellaneous Committee Expense.....	500
Stationery and Supplies.....	1,200
Postage, Telephone, and Telegraph.....	2,000
Rent, Insurance, Bonding.....	2,760
Committee on Auditing and Appropriations Annual Meeting.....	150 1,000
A.M.A. Delegates, Expense.....	300
Committee on Medical Preparedness.....	800
Total.....	\$45,150

INDUSTRIAL HEALTH PROGRAM FORMULATED

The Executive Secretary, on behalf of Dr. Barney J. Hein, Toledo, chairman of the newly-created Committee on Industrial Health, submitted a report to The Council setting forth certain recommendations for an active industrial health program in Ohio, which had been adopted by the committee at a meeting of the committee

in Columbus on Sunday, November 29, 1942. The general fundamental objectives of the program suggested by the committee were: (1) Formation of sound local educational programs on industrial health designed to curtail absenteeism of workers, especially in war industries, because of sickness and injury; to eliminate health hazards in plants; to educate workers and their families to keep themselves in good health; and to encourage good health and medical services for employes; (2) activities providing educational opportunities for members of the medical profession on matters of industrial health and the care of those disabled as a result of employment; (3) establishment of state and local organizations within the medical profession to carry out objectives (1) and (2).

The entire report of the committee, which included the following specific recommendations, was approved by The Council on motion by Dr. Paryzek, seconded by Dr. Sherburne and carried:

1. That the objectives and recommendations for state and local industrial health programs suggested by the Council on Industrial Health of the American Medical Association be approved and made the basis for an industrial health program in Ohio under the direction of the Committee on Industrial Health of the Ohio State Medical Association.

2. That each county medical society be officially requested to create at the earliest possible date a Committee on Industrial Health for the purpose of studying industrial health problems within the county and cooperating with the Committee on Industrial Health of the State Association in the establishment of an adequate local industrial health program in line with recommendations and suggestions provided by the State Association Committee.

3. That the present activities of the Ohio Procurement and Assignment Committee for Physicians, in endeavoring to meet the needs of war industries in Ohio for medical personnel, due to the expansion as a result of the war, be approved and that the Committee on Industrial Health be authorized to actively cooperate with the Procurement and Assignment Committee in meeting these particular problems.

PLANS FOR 1943 ANNUAL MEETING

A report submitted on behalf of Dr. Charles A. Doan, chairman of the Committee on Scientific Work, based on a meeting of that committee on Sunday, November 1, 1942, in Columbus, was reviewed. On motion by Dr. McNamee, seconded by Dr. Sherburne and carried the report as a whole and the following recommendations of the Committee on Scientific Work regarding the 1943 Annual Meeting were approved:

1. That the 1943 Annual Meeting be held at

the Neil House, Columbus, on Tuesday and Wednesday, March 30 and 31.

2. That the general title for the 1943 Annual Meeting shall be "Medicine on the Home Front".

3. That the First Session of the Annual Meeting shall be the First Session of the House of Delegates, which shall open at 4:00 P. M. on Tuesday, March 30.

4. That a Dinner Session shall be held on the evening of March 30, if feasible, to be followed by a program to be provided by guest speakers and to consist of subjects on general medical and health problems and activities under wartime conditions. The committee was authorized to select qualified speakers for this program and it was stipulated that the evening session should be open to members of the general public who might be interested in the topics selected.

5. That the Second Session of the House of Delegates shall be a Breakfast Session to be held at 8:30 A. M., Wednesday, March 31.

6. That a General Session entitled "Keeping Them Working" shall be held at 10:00 A. M., Wednesday, March 31, concluding at 12:30 P. M.; the program to consist of guest speakers on subjects relating to industrial health. It was stipulated that the meeting should be open to employers and employes who might be interested in the subjects selected.

7. That a General Session entitled "Keeping Them Healthy" shall be held at 2:00 P.M., Wednesday, March 31, concluding at 4:30 P.M., with guest speakers on the following subjects: (a) "Importance of Optimum Nutrition for the Civilian Population in Wartime"; (b) "Importance of Immunization of the Civilian Population in Wartime"; (c) "The Adjustment of the Physician to Civilian Needs in Wartime".

MISCELLANEOUS

Following a general discussion on medical service plans, on motion by Dr. Swan, seconded by Dr. Brindley and carried, the President was authorized to appoint a special committee to draft a communication on this subject for consideration of The Council at its next meeting and to be transmitted to county medical societies upon approval by The Council. President McCormick appointed the following as members of the committee: Dr. Sherburne, chairman; Dr. Schriver and Dr. Forman, Editor of *The Ohio State Medical Journal*.

There was a general discussion of the recent general election and anticipated proposals on medical and health questions which would be presented to the Ohio General Assembly, which will convene in January, 1943.

A communication from the Christian Science Committee on Publication for Ohio was read and

discussed. On **motion** by Dr. Sherburne, seconded by Dr. Micklethwaite and **carried**, the existing policy of the Ohio State Medical Association, disapproving proposed legislation which that committee is planning to sponsor in the next session of the General Assembly, was **reaffirmed**. Other proposals, discussed in a general way, were referred to the Committee on Public Relations for review and subsequent report to The Council.

A communication from a member with respect to the legal liability of a physician who renders first aid in an emergency but does not desire to continue in charge of any such individual, a problem accentuated through present civilian defense activities, was discussed. On **motion** by Dr. Beer, seconded by Dr. Harding and **carried**, the communication was referred to the Committee on Public Relations with the suggestion that it be discussed with the secretary of the State Medical Board and others who might be in a position to offer helpful advice.

Newest developments in Procurement and Assignment activities, especially those relating to reallocation of physicians, were presented by the Executive Secretary on behalf of Dr. Conard, chairman of the Procurement and Assignment Committee. It was reported that as of December 13, 1942, 2,320 Ohio physicians had been commissioned in the Army or Navy and are on active duty or awaiting immediate call for active service.

President McCormick informed The Council that there were a number of vacancies in standing and special committees because certain members have entered military service and he requested members of The Council to present suggestions in writing as to members who would make suitable replacements on such committees.

Two amendments adopted by the Cincinnati Academy of Medicine to the Constitution and By-Laws of that society were reviewed and, on **motion** by Dr. Schriver, seconded by Dr. Knoble and **carried**, were **approved**.

It was brought to the attention of The Council that because of the present emergency, resulting in many instances in a shortage of personnel both in funeral homes and hospitals, the present procedure with respect to autopsies might be seriously disrupted. Believing that the subject deserves serious consideration by those interested in the question, The Council, on **motion** by Dr. Schriver, seconded by Dr. McNamee and **carried** requested Dr. Forman to discuss the matter with the proper officials of the Ohio Hospital Association and Ohio Funeral Directors' Association.

A communication from a physician regarding failure of a county medical society to act on his application for membership, was discussed. It

was the opinion of The Council that this was a local question and it instructed the President to so inform the physician submitting the matter.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Congress on Industrial Health To Be Held Jan. 11-13 in Chicago

The Fifth Annual Congress in Industrial Health, sponsored by the Council on Industrial Health of the American Medical Association will be held Monday, Tuesday and Wednesday, January 11-13, at the Palmer House, Chicago. All physicians interested in industrial health are cordially invited to attend. There is no registration fee.

The program, which begins at 9:45 A. M., Monday, has been designed to illustrate how industrial health services can be extended and improved. Included are symposiums on Common Infections in Industry; Health Problems Associated With the Changing Character of the Work Force; Industrial Medical Practice and the Emergency; Streamlining Medical Service; Medical Relations in Workmen's Compensation; Rehabilitation; and Nutrition in Industry.

An informal dinner and round table discussion, intended primarily for the personnel of committees on industrial health of state and county medical societies, will be held on Monday evening. Subjects for discussion will be: Local Organization for Industrial Health Services and Recent Experiences in Postgraduate Industrial Medical Education. There will be a number of exhibits demonstrating the industrial health services now available through agencies in organized medicine, public health, and some independent agencies.

Participants in the meeting include many of the top-notch men in the field of industrial medicine and health. The preliminary program appears in full in the December 5, 1942, issue of *The Journal of the A.M.A.* Additional details can be obtained by writing Dr. Carl M. Peterson, secretary of the Council on Industrial Health, American Medical Association, 535 N. Dearborn St., Chicago.

Offer Prize for Glaucoma Paper

A prize of \$250 for the most valuable original paper written in 1943 adding to the existing knowledge about the diagnosis of early glaucoma will be awarded by the National Society for the Prevention of Blindness. Papers may be presented by any ophthalmologist, student of ophthalmology, or research worker in the Western Hemisphere, and they must be submitted to the society, 1790 Broadway, New York City, by Sept. 15, 1943.

Meeting Medical and Health Needs During the War Places Vital Responsibility on County Medical Society; Some Concrete Suggestions for Steps Which Can Be Taken

MORE and more frequently the question is being asked: "What is the medical profession doing to help meet the community health situation created by increased demands for medical services and decreased numbers of civilian physicians?" The obvious answer is, of course, that individual physicians are working long, hard hours and will continue as individuals to do all that is humanly possible to meet the medical needs of the people generally.

But it is to the medical profession as a group that the questions are directed and the answer must be given in terms of organized effort. In other words, the leadership must be furnished by the Ohio State Medical Association and each of its 88 county medical societies, working cooperatively with the Ohio Procurement and Assignment Committee for Physicians and other organizations representing allied professions.

The medical profession of Ohio has met and will continue to meet the challenge of the government with respect to providing its share of medical officers for the armed forces. The record speaks for itself and is one of which the medical profession of Ohio can be proud. Additional requests for medical officers will be made—these will be filled.

At the same time, the medical profession is confronted with a challenge from the civilian population. The people of Ohio have willingly given up several thousand of their physicians for military service. They are counting on those members of the profession who are ineligible for one reason or another for military service to maintain necessary medical and health services.

The present medical and health situation in Ohio in general is one which should not cause anxiety. There is sufficient medical manpower in the state to meet immediate or future problems. True, there is a question of more equitable distribution but this can and will be worked out by the State Association and the Procurement and Assignment Committee. A few areas are undermanned medically speaking but these conditions are rapidly being remedied—or will be in the near future. Facts do not substantiate certain exaggerated and alarming statements which have been made about conditions in Ohio by those who have not been in possession of factual information.

Nevertheless the medical profession in Ohio—the county medical societies especially—should not strike a smug attitude as there is work to be done and vital situations to be corrected. Each county medical society must do its part locally toward upholding the medical profession's responsibility in meeting civilian needs. Following are some suggested methods, some of which can be put into effect by each physician as an individual and some which will require

organized effort on the part of the county medical society. They should be discussed at county society meetings.

ALERT AND PROPER ORGANIZATION ESSENTIAL

Regular Meetings—Matters relating to the war effort and health questions arising from the war should be discussed fully and freely at county medical society meetings. Unless the societies meet regularly this cannot be done and only a portion of the things which should be done can be accomplished. Every society should make every effort to maintain a regular meeting schedule—special meetings if necessary.

Active Officers—No society can be on its toes unless it has active officers and committees. At this particular time the responsibility of officers is great. Each society has a right to insist that its duly elected leaders give the profession leadership in the many efforts which are necessary to properly meet wartime problems.

Committee on Medical Preparedness—Each society has, or should have, an alert and active Committee on Medical Preparedness. Such a committee may be classified as a major unit of the county medical society at this time. It constitutes the liaison between the local medical profession and the state and national organizations dealing with war activities. It must function efficiently. It must consist of members with sound judgment and courage.

Volunteer Assistance—Officers and committee-men should not be expected to shoulder all the responsibility and all the work. They need the help of all members. This is especially true now. Organized effort means interest and action on the part of each member.

ASSURING CONSTANT AVAILABILITY OF MEDICAL CARE

Emergency Cases—In several Ohio communities already medical societies or groups of phy-

sicians have set up plans designed to guarantee constant availability of medical care for emergency cases. These have been properly publicized to tell the people of the area that the profession is aware of its obligations and to forestall situations where it might not be possible to get a doctor when one is needed.

Responsibility Shared—In principle the mechanics of these plans are similar. Generally, the responsibility for emergency calls at night is rotated among all participating physicians so that at given intervals a certain physician is charged with accepting all emergency night calls and those where the family physician cannot be located. In larger communities, the area thus covered is zoned, with different physicians responsible for different zones.

Central Call Station—Usually, the plans for emergency services and zoning are administered through some central point such as a hospital, city health department, or the local physicians' switchboard service. Obviously, a central call station adds to the efficiency of the plan and should be maintained if at all possible.

Staggered Office Hours—Besides providing constantly available services for emergency, several of the plans include mutual agreements for the staggering of office hours and days off, thus assuring their respective communities that a sufficient number of physicians are always on hand in the community.

MEETING PROBLEMS OF OUTLYING AREAS

Rotating Calls—There are some suburban or outlying areas of semi-residential nature in Ohio in which there are no physicians. These are potential sources of trouble even though the metropolitan areas of which they are a part have sufficient physicians. This situation has been met in several instances through a mutual agreement among physicians of the metropolitan area. Either they have agreed to rotate days actually spent in the communities in question, or they distribute among their group all calls from those communities. In extremely rural areas, it might be possible for physicians of towns adjacent to those without physicians, to arrange for holding office hours on certain days in the latter towns, on a rotating basis. The question of charges and mileage must be considered.

Charges and Mileage—Excessive charges for calls to outlying areas must be avoided. The physician is entitled to a reasonable fee for long trips but each should remember that these are times of emergency, not to be taken advantage of. Necessary services must be provided for all areas. This will break down if the costs are excessive. Here is where the physician can make a real contribution toward meeting problems arising from the emergency. Each county society

would do well to consider immediately the problems of the outlying areas as they are potential sources of trouble.

CONTINUED EMPHASIS ON PREVENTIVE MEDICINE

Preventive Services—As factors in reducing unnecessary demands for medical services and minimizing illness, preventive medical practices and health education have assumed added importance. The county medical society is the logical agency to assume leadership in fostering both. Preventive medical practices can be promoted in two ways: (1) The society as a group can actively cooperate with health officials and school authorities to further worthwhile programs of immunization and other preventive measures, or (2) the physician in private practice can tactfully recommend to his patients the various procedures he believes they should take to insure good health.

Health Education—Education of the public in such fields as good nutrition and sound personal hygiene must be sustained at this time more than ever. Toward this end, the medical society should actively cooperate with acceptable health education and nutrition education agencies in the community. Press releases by local societies are desirable. The Bureau of Public Education of the Ohio State Medical Association is producing material of this kind and will assist local societies on request. Such releases also should advise the public how it can help in conserving the time of the physician working under emergency conditions.

Industrial Health—Promotion of health among industrial employes is of vital importance at this time as a means of reducing absenteeism in plants producing war materials. The State Association is formulating a program on industrial health activities and will ask each county medical society to cooperate. Here is a big field and a real job for most local societies.

MAXIMUM UTILIZATION OF HOSPITAL FACILITIES

Efficiency Measures—Although the field of hospital administration is in fact apart from the practice of medicine, still a bad community hospital situation will adversely affect medical and health services. Consequently, it would be wise for representatives of the medical society to cooperate with hospital officials to make sure that all hospital facilities are being utilized as efficiently as possible. Points to be considered in such a plan might include: elimination of "luxury" hospitalization; reduction of the time of hospitalization in certain types of cases; a survey of all beds in all community institutions for the care of the sick to determine if efficiency of utilization might be heightened through readjusting case loads, etc.; fullest possible use of

nurses' aides and other lay personnel to release interns and residents and nurses for professional duties.

Increasing Bed Capacity—In communities where such steps have already been taken the result has been a surprising increase in the availability of hospital facilities. One medium sized community found that it could increase its total bed capacity by more than 300 without purchasing a single piece of additional equipment. It did this by taking beds out of storage, placing additional beds in non-essential hospital floor space, and placing general patients in certain county institutions where the case load had dropped.

WIDER UTILIZATION OF NURSING SERVICES

It may be possible that the community's practicing registered nurses can assume certain tasks now being done by physicians, such as changing dressings, etc., under their direction, thus reducing demands for physicians' services. In at least one Ohio community, the local Red Cross chapter has made available the services of a graduate nurse for this purpose, and she has agreed to render such nursing care wherever it is recommended by the family physician. Close cooperation with nursing organizations should be maintained and their help solicited.

UTILIZATION OF SERVICES OF HEALTH DEPARTMENT

Cooperation and Coordination—Coordination of the services of the local health department and the services of the physicians in private practice is of greater importance now than ever. Many health department offices have personnel and facilities which would be extremely useful to the physician, especially if he finds himself swamped. The possibility of seeking the assistance of voluntary health agencies also should be explored.

EACH PHYSICIAN'S PERSONAL OBLIGATION

Longer Hours, More Work—It is obvious that the heavy demands of the armed forces for medical officers must result in greatly increased work for the physicians remaining on the home front. This added burden must be equitably distributed among all the physicians. Every physician at this time must provide all the medical service he is physically able to give. It may be necessary for some specialists to practice a limited amount of general medicine for the duration. It is necessary for physicians who have retired to resume practice and for those who have been devoting a limited amount of time to practice to carry on full working days. Local societies should drive home these points and try to work out means which will result in an equitable division of time and work among all doctors in the county.

Making Up Schedules—Many physicians can improve the efficiency of their practices and help in conserving the time of patients as well as their own time, if they will do a better job of scheduling patients for office and home calls. For example, with help of his patients, a physician may be able to schedule house calls so he can see all patients residing in a certain section of the city or county in the morning and those in another area in the afternoon. Emergency calls must be made, of course, but certainly confusion in routine calls could be avoided through more efficient scheduling. Moreover, patients should be encouraged to see the doctor in his office whenever possible thus saving time and providing an opportunity for the physician to make use of the services of his office nurse or attendant.

MISCELLANEOUS RECOMMENDATIONS

Rationing Problems—The rationing of automobiles, tires and gasoline presents problems which affect the medical and health situation to some extent. Medical and health services will break down unless the physician is provided with means of transportation. The county medical society should represent the medical profession of the county before rationing boards if serious problems arise. This could be done through the Committee on Medical Preparedness or a special committee established for that specific purpose. In bona fide cases of complaint, the county medical society's influence should be used in seeing that satisfactory adjustments are made.

Obstetrical Problems—In one community the medical society conducted a pregnancy survey as a means of estimating future demands for obstetrical services and maternity beds in the local hospital. It should be a permanent and continuing project of the local medical society to maintain complete and reliable data about the medical resources of the county—hospital facilities and medical personnel. If breakdowns seem imminent, steps to correct the situation should be taken immediately—before the crisis occurs.

Official War Services—The profession is obligated to assist the government in providing medical advice and services for war agencies such as Selective Service and Civilian Defense. All physicians should participate in these activities. The burden must be equalized. If only a few physicians take on these duties these physicians will not be able to devote sufficient time to their patients. This is unfair to those men and their patients.

* * *

Suggestions as to how some of the problems reviewed here might be handled or information as to how they are being met should be transmitted to the Headquarters Office, Columbus, so

they can be passed on to all county medical societies.

Providing civilians with necessary medical and health services is a responsibility of the medical profession under all conditions. Under wartime conditions the job is difficult but it can and will be done. No decrees, no administrative proclamations, no legislation, no compulsion will be necessary to tell doctors how to do the job on the home front, providing medical organizations take the initiative and the individual physician follows through.

"Doctors at War", New A.M.A. Radio Program, On the Air

"Doctors at War", a series of weekly dramatized radio broadcasts presented jointly by the American Medical Association and the National Broadcasting Company, and in official cooperation with the Army and Navy, was begun on Dec. 26 over the NBC national network. The programs are presented each Saturday at 5 p. m., EWT.

This year's series will be known as "Book III of Doctors at Work", which is the title of the two previous years' series of broadcasts by the American Medical Association. It will continue for 26 weeks.

Since this type of program is the sustaining type—that is, it is not commercially sponsored but is given on time presented gratis by the stations—it is up to the discretion of local station officials whether they wish to offer this feature to their listeners. Consequently, it will be helpful if medical society officers in counties where NBC-affiliated stations are located approach the proper authorities in these stations and indicate the interest of the local medical profession in this series.

In vivid dramatic fashion "Doctors at War" will tell the story of the medical profession's role in the war effort—in the Army, in the Navy, in industry, and at home. On selected dates Maj. Gen. James C. Magee, surgeon general of the Army, and Rear Admiral Ross T. McIntire, surgeon general of the Navy, will appear as special guests.

The programs will continue the dramatized narrative of fictitious but typical American physicians in the military and naval services of the United States and in communities where the practice of medicine is affected by industrial expansion, troop training programs, and other wartime circumstances.

Ohio's NBC stations to which "Doctors at War" will be available are: WLW, Cincinnati; WSAI, Cincinnati; WTAM, Cleveland; WCOL, Columbus; WING, Dayton; WLOK, Lima; WIZE, Springfield; WSPD, Toledo; and WHIZ, Zanesville.

Data and Advice on New Income Tax Law to Appear in February Issue

Congress has enacted a new Income Tax law and everyone is going to have to pay higher taxes in 1943. This is not news to physicians, of course. However, physicians will want to have authoritative advice and information about the new Federal Tax Law. The Journal will present this material in its February 1 issue, as well as data on state tax laws. Watch for that issue.

Medical Profession Praised in Cincinnati Enquirer Editorial

The following editorial, entitled "Doctors and the War", which shows a gratifying understanding of the problem that has confronted the medical profession during the war emergency, was published in the *Cincinnati Enquirer* on Dec. 9, 1942:

"The medical profession in the United States is carrying on the most important of all war-time jobs. It is doing it without fanfare or trumpets; without legislative action. The War Man-Power Commission, with the cooperation of the American Medical Association, not only has solved the serious problem of a shortage of physicians in the armed forces, but it also is working out carefully a program for civilian medical care which will, in a large measure, fill the breach at home during the war years.

"Voluntarily and without pressure from any governmental group, the medical profession of the country stepped in when the army, a few months ago, announced that there was a prospective shortage of physicians. A roster of 176,000 licensed physicians was made available, and from it the military quota was filled—a process which placed some 42,000 doctors in uniform.

"This might have been expected to place parts of the civilian population in danger of lack of medical care. But this, too, was taken into consideration, and plans have been—and are being—made so to distribute the remaining medical men that all communities will have sufficient medical service.

"The entire situation is most serious, and has been treated as such by members of the profession which realizes best the need for health in times of national stress. Nothing could retard the war effort more than widespread breakdown of American health standards.

"The physicians and doctors know full well that they have two jobs to do, at home and in the services, and they realize fully that the one is just as important as the other."

Examinations Given by Medical Board on December 2-4 In Columbus; Questions Asked Medical School Graduates

THIRTY graduates of medical schools were examined for licenses to practice medicine and surgery in Ohio, at the mid-winter meeting of the State Medical Board, December 2-4, at Columbus.

Licenses to practice osteopathy and surgery were sought by 12 applicants. Examinations for certificates of limited practice were taken by 6 chiropractors, 27 mechano-therapists, 12 masseurs, 4 chiropodists, and 1 cosmetic therapist.

Results of the examinations will be announced at the meeting of the Board to be held in Columbus, January 6.

Following are the questions asked those who were examined for licenses to practice medicine and surgery:

ANATOMY

1. Describe the ventricles of the brain.
2. Give origin and distribution of the fifth cranial nerve.
3. Name the pelvic muscles attached to the Trochanter Major. Give their origin.
4. Describe the portal circulation.
5. Describe the Sciatic Nerve.

PHYSIOLOGY

1. Define: (a) chromosomes
(b) fovea centralis
(c) catabolism
(d) Peyer's patches
2. What is: (a) average amount of blood in the human body?
(b) pulsus alterans and its significance?
(c) reciprocal inhibition with example?
(d) the pile bearing inch?
(e) average vital capacity?
3. Discuss blood typing, giving reasons for, use of and methods.
4. Compare the use of intravenous saline and whole blood in conditions attended by shock.
5. Give sketch and explanation of myopia.
6. Describe briefly the formation and excretion of urine.
7. What is the function of:
(a) the ureters?
(b) reticular tissue?
(c) the blood?
(d) the cerebrum?
(e) the bundle of His?
(f) the ampule of Vatter?
8. Classify the glands of the body according to function, giving examples of each with the product of each gland named.
9. Outline the physiology of taste of foods.
10. Describe the changes undergone by the muscle when it goes into rigor mortis.

CHEMISTRY

1. Define Osmosis. On what does it depend? And give its significance in the body.
2. What clinical conditions are discoverable by careful urinalysis?
3. What is insulin? Where formed, and what is its function?
4. Define Acidosis. Under what circumstances does it occur?
5. How would you test for the presence of blood in stomach contents or on fabrics?

DIAGNOSIS

1. Describe methods to differentiate angina pectoris from so-called pseudo angina pectoris.
2. Name six pathological materials that may be found in the pleural cavity.
3. In the female, give the signs and symptoms, right side, of (a) stone passing through the ureter, (b) floating kidney pulling on the ureter, (c) twisted pedicle of ovarian cyst.
4. Give signs and symptoms of irritable duodenum, spastic colon and diverticulitis of transverse colon.

5. What two methods would you use to discover myeloma?
6. Differentiate by blood findings so-called primary anemias from secondary anemias.
7. In what conditions do you find:
(a) Argyle-Robertson pupil
(b) loss of patellar reflex
(c) Nystagmus
(d) scanning speech
8. Name the different kinds of Aneurisms of the thoracic aorta and give signs and symptoms of each.
9. Give signs and symptoms of thyrotoxicosis of six months duration.
10. Differentiate streptococic sore throat, diphtheria and Vincents angina.

PRACTICE

1. Given a 38 year old female with a persistent blood & pressure reading of 210 sys. and 120 dias., discuss the
2. etiology, pathology, laboratory findings, symptoms, progress, probable outcome and treatment.
3. Give the principles guiding you in prescribing the dosage of insulin in an ambulatory patient of middle age with moderate degree of diabetes.
4. Give the etiology and symptoms of urticaria. What is the treatment (a) during an attack and (b) outline measures to prevent recurrence.
5. Discuss the cause of and management of colic in a three months old babe, breast-fed, weighing 10 pounds (6 lb. at birth).
6. Give early symptoms leading you to make a presumptive diagnosis of poliomyelitis and when, and on what symptoms, will you make a positive diagnosis? Outline the principles of a recently suggested treatment of the early paralytic stage.
7. Discuss the usual underlying conditions of cardiac fibrillation. Give symptoms and treatment.
8. Give the symptoms and method of recognizing a case of gastric ulcer without evident bleeding. Give medical treatment.
9. What is meant by the term "wrist-drop"? Give causes and nerve involvement.
10. Discuss the etiology, symptoms and treatment of delirium tremens.

MATERIA MEDICA AND THERAPEUTICS

1. What measures, including drugs, may be used to increase the volume of blood in the arteries? Discuss therapeutics of these measures.
2. What are antipyretics? How do they act? What are emetics? How do they act?
3. Name four cathartics which can be used hypodermically. Give adult dose of each, and tell how each drug acts.
4. Discuss the therapeutics of benzedrine sulfate.
5. Name five undesirable effects of administered estrogen.
6. Discuss the therapeutics and action of suprarenal cortex.
7. Name three drugs that stimulate the central nervous system; three drugs that depress same. Give adult dose and action of each drug.
8. What drugs are indicated in: heart block; auricular fibrillation; anasarca; hiccough; tachycardia? Give adult dose and action of each drug.
9. Name the drugs that stimulate the terminals of the sympathetic nerves? The parasympathetic? Name the drugs that depress same.
10. Write a prescription which could be used as a routine antidote for unknown ingested poisons. Do not sign your name.

MATERIA MEDICA (Homeopathic)

1. How are homeopathic dilutions and triturations made?
2. Give five characteristic symptoms for (a) belladonna; (b) bryonia; (c) gelsemium; (d) pulsatilla; (e) sulphur.
3. Compare hepar sulphur and spongia in croup.
4. Give four remedies and indications for each that may be used in the treatment of typhoid fever.
5. Compare the use in the digestive system of antimonium crudum arsenicum album and nux vomica.
6. Give the respiratory indications for antimonium tartaricum.
7. Describe the type of patient usually considered as calling for the prescription of pulsatilla. Why?
8. Write a prescription for mercurius biniodide, third decimal, in a case of sore throat.
9. What are "green plant tinctures"? How do they compare with the ordinary tinctures?
10. Name and give the indications that may suggest the use of each of four remedies in obstetrics.

OBSTETRICS AND GYNECOLOGY

1. What fatal, or potentially fatal, accidents may happen to a fetus on its way through the parturient canal?
2. Discuss the management of a face presentation.
3. In a primipara at term, how would you determine whether or not the pelvic outlet is too small for a spontaneous delivery?
4. What changes may take place in the liver during pregnancy? Discuss as to: etiology, symptoms, treatment.
5. Discuss causes, dangers and treatment of abnormal contractions of uterus during labor.

SURGERY

1. What are the causes of unilateral exophthalmos?
2. How would you differentiate between the jaundice due to hepatitis and that due to stone in the common duct.
3. Give differential diagnosis and treatment of the various types of primary sarcoma of the lower femur.
4. Under what conditions is high amputation of the cervix indicated, and how may this operation affect subsequent pregnancy and labor?
5. Define rodent ulcer; epulis; varicocele; carbuncle; cellulitis; dermoid cyst.
6. Give differential diagnosis of ulcer of the tongue.
7. Discuss the factors concerned in maintaining the uterus in its normal anteflexed position.
8. Name the principal affections of the tendon sheaths. Give brief outline of clinical picture diagnosis and treatment.
9. Tuberculosis of the hip joint: give clinical history, diagnosis and treatment.
10. Popliteal aneurysm. Give varieties; etiology; diagnosis surgical principles employed in treatment.

BACTERIOLOGY, PATHOLOGY AND HYGIENE

1. Name three diseases for which there are protective inoculation measures; state substance used in each and give technic of administration.
2. What is meant by a serologic diagnosis? Give two illustrations in common use; describe the technic in each and reasons for the reactions observed in the tests.
3. How would you proceed to obtain and examine or submit for examination material for the diagnosis of (a) typhoid fever; (b) diphtheria; (c) syphilis; (d) gonorrhea and (e) malarial fever.
4. Name three pathogenic bacteria which may be found in the urine; how may they be recognized and what pathologic conditions do they indicate?
5. Describe the pathologic findings in cancer of the cervix of the uterus, and outline the usual progress of the disease if not relieved by early appropriate treatment.
6. Discuss the pathology, etiology and pathologic results of varicose veins in the lower extremity.
7. Describe the pathologic findings in chronic gastric ulcer and discuss their relation to frequent unfavorable results.
8. On what grounds would you suspect that a criminal abortion had been performed, and what medico-legal steps are indicated?
9. What public health procedure should be followed in a case of suspected early syphilis in an indigent patient?
10. What procedure should be followed in case of unexplained death or one under suspicious circumstances?

SPECIALTIES

1. Outline the immediate treatment of laryngeal spasm in inhalation anaesthesia.
2. Give the differential diagnosis and management of: erysipelas and scarlet fever.
3. Give the diagnostic signs, management, dangers and treatment of suppurative otitis media.
4. Define and give causes and symptomology of Jacksonian epilepsy.
5. Differentiate bubo and chancre.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Mary Helen Saleba, Portsmouth, and Lt. Clayton W. Clark, Cleveland; Miss Barbara MacPherson, Detroit, Mich., and Lt. Melvin S. Dennis, Columbus; Miss Lois Swineford, Ashland, and Dr. Charles F. Gibbons, Dayton; Miss Dorothy Wilson and 1st Lt. George W. LeSar, Cleveland; Miss Donna Ruth Gelbaugh and Dr. Edward E. McKee, Cincinnati; Miss Helen L. McSweeney, Wellsville, and Dr. Edward W. Kiskall, East Liverpool.

Plan Follow-up of Registrants With Active Tuberculosis

The use, disposition, and filing of X-ray films of chests of rejected Selective Service registrants is the subject of Circular No. 77 issued by State Selective Service Headquarters on Nov. 23. According to the circular, X-ray films of the chests of all inductees rejected at Army examining stations are to be forwarded to State Selective Service Headquarters, Columbus, for distribution.

The films of registrants rejected for all military service because of active tuberculosis are forwarded by State Selective Service Headquarters to the State Department of Health, to be in turn distributed to local city or county health authorities for their information and follow-up in the interest of the registrant and the public health. These state and county agencies are designated as agencies assisting in Selective Service.

Films of inductees rejected for other reasons at the examining-induction station are redistributed to local boards by State Selective Service Headquarters, and local boards are being provided with filing facilities and instructions for filing.

Whenever a registrant previously rejected is re-ordered for induction, the X-ray film made at his first induction examination is to accompany his papers because it is considered valuable to the Army examining board for comparison purposes.

X-ray films of rejected registrants on file at local board headquarters may be examined at any time by public health physicians or by the registrants' family physicians on presentation of written, signed authority. Such films are not to be removed from the custody of the local board except when forwarded for re-examination of a previously rejected registrant.

Women Physicians Cancel Meeting

The annual convention of the American Medical Women's Association, scheduled to be held in San Francisco in June, 1943, will be cancelled, it was decided at the mid-year meeting of the Association's Board of Trustees in Cincinnati, Dec. 5 and 6. Abandonment of the annual gathering was considered necessary because of the wartime restrictions on transportation. Instead of the annual convention, the association will hold another meeting of its board in Chicago, June 5 and 6, immediately preceding the meeting of the House of Delegates of the American Medical Association. Chairman of this meeting will be Dr. Beulah Cushman, Chicago.

Excellent Work Carried on at Medical Training Section, Robins Field, Reviewed by Two Columbus Officers

Editor's Note: The following communication was received by *The Journal* from 1st Lt. Thomas E. Rardin and 1st Lt. Oscar F. Rosenow, Columbus physicians now on the staff of the Medical Training Section, Robins Field, Warner-Robins, Ga. *The Journal* is happy to have the opportunity to publish this splendid resumé of the work being carried on there, not only because it contains information about so many Ohio physicians who are now serving as medical officers in the Army Air Force, but because it reveals what is being done at one large air training station to provide medical officers with the special training necessary for their specific duties with the Air Force and to assist them in making the proper adjustments from civilian to military practice.

“THE physician entering the military service is often desirous of following the career for which he has been educated, this being a natural desire. The belief of many physicians that they will follow this type of work and that they should be quickly placed in locations in which medicine or surgery is the central theme almost becomes an obsession, and makes for greater difficulty in the adjustment to the new environment, as well as in the new field of work into which these men are placed. It is our intention to present a resumé of the Medical Training Section at Robins Field, Warner-Robins, Ga., where we were sent to receive our initiation into military life and point out some of the essentials that have helped to make this spot a successful one for the incoming doctor to start his military education and adjustment. Bear in mind that all the facts which we would like to present to make this more interesting and informative cannot be given, many being withheld for military reasons. Ohio physicians have figured prominently in the development of this Training Section, and many are graduates of the school here at Robins. We felt that many Ohio physicians would be interested in hearing of their colleagues in the service.

“Robins Field is a new and large Air Depot, under the Air Service Command. The headquarters for the Air Service Command is located at Patterson Field, Dayton, Ohio. Thus, we from Ohio feel a close relationship to this school, as well as similar training sections under the supervision of Patterson Field.

“The tremendous expansion of our Air Force created the problem of service for these. This problem has assumed its true perspective and has necessitated the establishment of Air Depot and Air Service units for duty anywhere. These essential non-combatant groups truly ‘keep ‘em flying’. The personnel of these units needs medical protection which includes first aid, medical care and sanitation instruction. The medical officer is delegated this responsibility, but to be able to go from the duties of civilian physician to those of these specific and new units neces-

sitated special training. Thus came about the creation of the Medical Training Section of the Air Service Command, located here at Robins Field.

“This particular training school, to give instruction to both medical and dental officers as well as enlisted men for Air Service Command duties, is a genuine tribute to the Post Surgeon here at Robins, Major Richard R. Cameron, whose dynamic energy, untiring and unselfish efforts have all been directed toward the development of this fine institution. It has been no easy task for the vision and goal he had in mind to become a reality. The obstacles were great, but all have been taken in stride and overcome by him. The burden was lightened by the cooperation and aid of his superior, Colonel John M. Hargreaves of Patterson Field, the Surgeon of the Air Service Command, and all the other superior officers who could visualize the need of a special training school for medical officers for Air Service activities. Those medical officers who have come and gone, and are now connected with their various units, are deeply indebted and appreciative of the training they received here. This is attested by the many letters received by Major Cameron and the school's Executive Officer.

“The transition into Depot or Service Group medical officer is not an easy one, for as mentioned above, all physicians have the desire to do their part, but feel they can do it better in the field of medicine or surgery. The training given here is not for the purpose of making them better doctors, since this is not the problem of the war, but is one to aid them in keeping the physical health of the soldier such that he is ready for arduous duty at a moment's notice. The training is also of value to the medical officer in the defense of his own life, as well as those for whom he is responsible. The medical officer is given basic, technical and tactical training in military problems and military medical problems and in this way can then function as an important nucleus in units very essential for the all-out goal, Victory.

“Ohio physicians are numerically well repre-

sented at Robins Field, 69 having completed the training course here, plus two dentists. Twenty-five of the men from Ohio are at present members of the staff of the Station Hospital or the Training Section.

"A brief resumé of the names and duties of the Ohio men on the staff should be of interest and is here presented.

"Lt. James F. Mills, Cincinnati, is the officer in charge of the Officers Section of the Training School. He is a veteran of the school, since he was one of the first physicians to be sent here, and has done much to aid the medical officer in his adjustment to this new environment. His disciplinary action, as well as his soldiery bearing obtained from previous military training, was at once recognized and he was placed in charge of all military drill for medical officers. No medical officer has gone through this school without developing the greatest respect for the fine way in which 'General Mills', as he is known here, has shouldered his own burdens. The tireless effort and spirit for cooperation in aiding the newcomer is something which none who have come in contact with him can ever forget.

"Lt. Wayne C. Smith, Van Wert, was placed as officer in charge of all enlisted men in the responsible position of organizing these men into training units. With hard work and sincere effort, he has developed a well organized group of companies for medical department instruction.

"Capt. S. W. Kessler, Cleveland, Commanding Officer of one of these companies, is also a school veteran and has done much to aid the new physicians. His first duties after completing his course here were to instruct the officers in Tropical Medicine.

"Capt. George O. Thompson, Alliance, is Commanding Officer of a Medical Supply Platoon, Capt. August F. Faith of Cincinnati is an Assistant Company Commander and Capt. Ralph E. Hershberger of Tiffin and Lt. Homer D. Underwood of Van Wert are Platoon Commanders. These men are all in the enlisted men's organization.

"Lt. Allen L. Schaffer, Cleveland, is the Battalion Gas Officer and Capt. John W. Viktoryn, also of Cleveland, is the Director of Athletics, Morale Officer of the Officers Section and the Housing and Billeting Officer for the officers.

"Lt. Emery J. Braun, Akron, is the Assistant Civil Service Personnel Executive Officer. Capt. Arnold Iglauer, Cincinnati, and Capt. Clyde W. Berry, Wapakoneta, are both on temporary duty at Walter Reed Hospital in the School of Tropical Medicine, while Capt. Chester R. Jablonski, Garfield Heights, is also on temporary duty at Johns Hopkins Hospital studying pathology.

"Maj. James Foster, D.C., Dayton, is officer in

charge of all dental instruction and is also in charge of redesigning the dental field equipment. Maj. William V. Allen, D.C., Xenia, is at present on duty at the infirmary at Herbert Smart Air Port, under this field. He was formerly Personnel Officer of the Training Section.

"Capt. Morrison Belmont, Youngstown, is the Supply Officer for the Medical Training Section and Lt. James B. Johnson, from Indiana, is the Assistant Plans and Training Officer for the section. He is almost an Ohio man, having graduated from Ohio State in 1940 and spending his internship and residency in Ohio hospitals.

"The following five Ohio Medical Officers are associated with the teaching staff of the Training Section, and are in charge of certain phases of the instruction for officers and enlisted men.

"Capt. Carl W. Hahn, Cleveland, is in charge of teaching Military Training subjects and is, in addition, the Commanding Officer of the Medical Officers Company.

"Lt. Floyd A. McCammon, Van Wert, has been an able instructor in various military subjects.

"Lt. Clyde W. Muter, Warren, is in charge of First Aid Instruction to the Civilian Guards, and the Medical Officers and also in charge of the Surgical Technicians school, this being for enlisted men only.

"Lt. Thomas E. Rardin, Columbus, is the Assistant Officer in charge of the Instructors Pool and Instructor in charge of Military Medicine, also instructor in first aid for the officers' wives on the post.

"Lt. Oscar F. Rosenow, also of Columbus, is in charge of the Medical Technicians School for enlisted men, instructor in first aid to the military police, and gastroenterologist on the Station Hospital staff.

Lt. Samuel J. Campbell, Bucyrus, is Assistant Chief of the Surgical Service at the Station Hospital. Lt. Glen S. Lampkin, Sardinia, is the officer in charge of Infirmaries and Capt. Allen A. Cole, Logan, is the Infirmary Officer of the 4th Station Complement.

"This is a vision, a realization, a station hospital which any post might well be proud of and a school for training medical officers which by the confirmatory reports of the graduates speaks for itself. Surely this is a token in which the attributes of Major Cameron are so well reflected.

"Below is a complete list of men from Ohio, other than those mentioned above, who have completed their course of training here at Robins Field. We sincerely hope this information will be of interest to the physicians back home who know these men and also others who are in the

Medical Corps and who would be glad to know where some of their friends have been sent:

"Lt. Frank W. Anzinger, Springfield; Capt. Von Bergen Barnhisser, Camden; Lt. Maurice J. Bishko, University Heights; Lt. Edmond J. Booth, Newcomerstown; Capt. Samuel R. Brandwan, Shaker Heights; Lt. Clyde G. Chamberlin, Shaker Heights; Lt. Francis J. Denning, Steubenville; Lt. David G. Dillahun, Columbus; Capt. Samuel H. Eisenberg, Akron; Lt. Howard H. Englander, Cleveland; Capt. Harrison S. Evans, Worthington.

"Lt. Lyle C. Franz, Ripley; Capt. John L. Gilen, Canton; Lt. Roger M. Gove, Urbana; Lt. Fred Haufrecht, Cleveland; Capt. Otho L. Hawk, Cleveland; Capt. Albert Hirsheimer, Dayton; Capt. Kenneth R. Howard, Toledo; Lt. Robert B. Jacobs, Dayton; Lt. Harvey A. Karom, Akron; Lt. Harold Keiser, Fremont; Lt. Andrew J. Lamb, South Euclid; Lt. Howard Lauer, Dayton; Lt. Merritt K. Marshall, Findlay; Lt. Robert G. McCready, Akron; Lt. Robert S. Mowry, Lima; Lt. Gordon A. Pilmer, Springfield; Lt. Robert R. Richards, Lakewood; Capt. Morris S. Rosenblum, Youngstown; Lt. Stuart A. Safdi, Cincinnati; Lt. Ben F. Sawyer, North Star; Lt. Raymond H. Schroeder, Quincy; Capt. Jacob Shapiro, Delphos; Capt. George I. Scheetz, Rockford.

"Lt. Richard H. Sloan, Marietta; Capt. Robert G. Slusher, St. Henry; Lt. Robert L. Smead, Toledo; Lt. Gordon A. Smith, Elyria; Capt. William F. Sohngen, Cincinnati; Lt. Edward P. Sparks, Jr., Sidney; Capt. Clement E. Steyer, Lakewood; Capt. Henry T. Stiles, Mansfield; Lt. Jerome S. Surdyk, Dayton; Lt. John P. Urban, Columbus; Capt. Leard B. Wylie, Lakewood; and Lt. Robert E. Zipf, Dayton."

(signed) *Thomas E. Rardin, 1st Lt., MC*
Oscar F. Rosenow, 1st Lt., MC

Ruling on Hernia Cases

Local Selective Service Boards have been advised by Col. C. W. Goble, State Director of Selective Service, that registrants who are found to have definite hernia of any type should not be forwarded to induction-examining stations.

Discussing the subject in Circular No. 80, dated Dec. 4, Colonel Goble said there has been frequent misunderstanding regarding the availability of registrants with hernia for induction. Although cases of definite hernia should be classed 4-F by the board, questionable cases should be forwarded to the Army examining-induction boards for final diagnosis and determination, he said.

Marion—Dr. A. A. Starnier has retired after 46 years in active practice. He and Mrs. Starnier will reside in New York City.

Do You Know . . .

Dr. Alfred Blalock, professor of surgery, Johns Hopkins University School of Medicine, was guest speaker for the Fifth Annual Lower Lecture, November 20, at the Cleveland Medical Library Auditorium. He discussed "Surgical Shock".

* * *

December old-age pension payments in Ohio hit a new all-time monthly peak of \$3,732,942, an average of \$26.97 among 138,402 recipients.

* * *

Miss Rubygrant Pennell, Columbus, of the medical section of the State Industrial Commission is the new president of the Ohio Society of X-ray Technicians.

* * *

The Annual Spring Clinic Meeting of the Cleveland Dental Society will be held May 10-12 at the Hotel Statler, Cleveland.

* * *

Dr. James F. Wilson, for 16 years health commissioner of Fayette County and secretary for many years of the Fayette County Medical Society, has been appointed health commissioner of District Four of the Michigan State Health Department, with headquarters in Rogers City.

* * *

The Gorgas Medal, founded by John Wyeth and Brother, Philadelphia, has been awarded by the Association of Military Surgeons of the United States to Rear Admiral Edward R. Stitt, U.S.N.; Brigadier-General Jefferson R. Kean, U.S.A., and Brigadier-General Frederick F. Russell, U.S.A., for distinguished service in preventive medicine for our armed forces.

* * *

There were 113,036 babies born in Ohio during the first 10 months of 1942, indicating a new all-time record for the year, according to a recent announcement of Dr. R. H. Markwith, state director of health. The total in 1941 was 122,456. The previous boom year was 1924, when 132,048 births were recorded in the state. The lowest figure in recent years was in 1933, in the wake of the economic depression, when 95,962 babies were born.

* * *

Twin ceremonies on December 17 at Rensselaer, N. Y., and the Hotel New Yorker, New York City, marked the presentation of the Army-Navy "E" to Winthrop Chemical Company. Speakers included Brig. Gen. Charles C. Hillman, of professional services of the Surgeon General's office of the War Department; Rear Admiral Charles S. Stephenson, head of the division of preventive medicine, Bureau of Medicine and Surgery, Navy Department and Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*.

Ohio Asked to Furnish Additional Medical Officers In 1943; Re-appraisal to Classify Availables Started; Needs of Civilians Will Be Analyzed Carefully

OFFICIAL information has been received by the Ohio Procurement and Assignment Committee for Physicians from the Washington office of the Procurement and Assignment Service, that Ohio will be expected to furnish additional medical officers for the armed forces during 1943.

According to Dr. Robert Conard, Wilmington, chairman of the committee, a re-appraisal of Ohio physicians under 45 years of age has been started to ascertain their availability for military service, with special consideration to be given to retaining an adequate number of physicians for civilian and industrial needs.

"Our committee believes that Ohio will have no difficulty in meeting the anticipated request of the Army and Navy for additional medical officers from this state," Dr. Conard said. "The services are particularly anxious for young medical officers. We are sure that Ohio still has a considerable number of young physicians who can be classified as available. This is especially the situation in most of the metropolitan areas. As soon as complete details have been worked out the Procurement and Assignment Service will get in touch with those who can be spared from civilian practice and assist them in obtaining commissions."

NO RECRUITING TEAMS PLANNED

Present plans indicate that recruiting teams will not be placed in operation in Ohio during 1943. Definite arrangements for accepting applications from physicians classified as available for military duty are being formulated now and will be announced in the near future. The anticipated instructions will contain specific information as to the status of applications now on file with the Army or Navy. Some Ohio physicians have applications pending at Washington as a result of suspension of the commissioning of additional medical officers from Ohio in October when the Ohio quota for 1942 was filled.

It was pointed out by Dr. Conard that the re-appraisal of Ohio physicians of military age will be done thoroughly and in close cooperation with local committees, with due regard for the civilian needs of each community. Inasmuch as 2,335 Ohio physicians had left practice as of December 23 to enter the Army or Navy and 23 others to enter full-time service with other Federal agencies, such as the Public Health Service, Veterans' Administration, etc., the point has been reached, according to Dr. Conard, where classification of physicians must be done even

more thoroughly and efficiently than it was done during 1942.

SITUATION IN OHIO NOT ALARMING

"At present the over-all medical and health situation in Ohio is satisfactory," Dr. Conard announced. "The state's ratio of physicians to civilian population is below the danger point. We can supply additional medical officers without seriously affecting the safety ratio.

"However, we are fully aware that there are some communities where the proper ratio does not exist and real efforts are being made to correct that situation. Check-ups have been made and additional surveys will be conducted to find out the actual situation in all areas and special consideration will be given to doubtful localities. There are no real distress areas at present although there are a few communities which need the services of additional general practitioners. Obviously, physicians from the doubtful areas will not be cleared for military duty and the committee is trying to obtain the services of physicians for those places from among physicians who are not eligible for military service because of age or physical disabilities.

VOLUNTEERS ARE NEEDED

"The committee has been successful in placing physicians in some communities for the duration and has assisted industries in getting additional physicians or replacements for those who have entered the service. The present procedure is entirely voluntary. We believe—at least we hope—that all situations can be met through the voluntary plan. The success of the plan of distributing our medical manpower on a voluntary basis will depend primarily on the willingness of physicians ineligible for military duty to leave their present locations and go into other areas for the duration as a contribution on their part toward meeting a very vital problem of the present emergency."

Dr. Conard earnestly requests any physician willing to consider civilian practice in some community needing a physician, industrial practice or a position in a state institution to get in touch with him promptly through the central office of the Procurement and Assignment Committee, 1005 Hartman Theatre Building, Columbus.

STATUS OF INTERNS AND RESIDENTS

There is a possibility that institutions using interns and residents will have to take another notch in their belts during 1943. There should be

“Drafting” Physicians for Civilian Needs Should Not Be Necessary; Voluntary Plans Must Be Successful

“Draft of Physicians for Civilians Proposed” was the heading appearing over a recent Washington newspaper dispatch, quoting a prominent government official who recommended this be done for communities needing medical aid.

Such action should not be necessary to meet civilian needs—at least not in Ohio. This state has adequate medical manpower to meet the needs of Ohio’s civilian population. However, the question of bringing about a better distribution of physicians does exist.

Efforts to produce results through voluntary methods have been initiated in Ohio by the State Medical Association and the Procurement and Assignment Committee.

If these efforts fail, the government may think it wise to exert compulsion.

Present methods will not fail if enough physicians who are ineligible for military service will make a contribution toward solving wartime problems by locating for the duration in some area in need of medical personnel.

Those willing to engage in civilian or industrial practice in communities other than their present location should communicate at once with the Headquarters Office, Ohio State Medical Association, Columbus, submitting their preferences and qualifications.

To repeat: “Drafting” of physicians **SHOULD NOT** be necessary to meet civilian needs in Ohio. The physicians of Ohio are the ones who can furnish the definite answer: “Drafting” of physicians for civilian needs **IS NOT** necessary in Ohio.

a proper number of interns for all institutional needs, but hospitals may have to work out a plan for a more equitable distribution of interns. In view of the urgent need of the armed forces for young medical officers, the number of residents will have to be kept at an absolute minimum, the Procurement and Assignment Service at Washington has announced, indicating that only residents who are shown conclusively to be essential in the proper operation of the institution can be classified as essential. There is no assurance that interns holding commissions in the Army or Navy will be deferred from active duty at the completion of their internship to continue in residencies. The decision rests with the War and Navy departments. It has been suggested that institutions should give careful consideration to selecting residents from those who cannot qualify for military duty or who have been classified as essential men by Selective Service.

PROBLEMS REGARDING STUDENTS

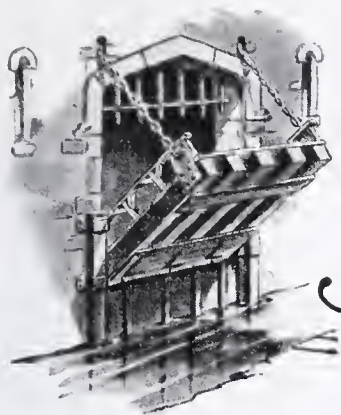
What effect the new training program for college students recently announced by the Army and the Navy will have on medical and pre-medical students is not definitely known at this time as complete details have not as yet been worked out. However, there is reason to believe that there will be little, if any, change in the status of students now enrolled in medical schools. Changes may be made in their military status but in all probability they will be permitted to continue with their medical studies in the school in which they are enrolled. The situation with respect

to pre-medical students has not been clarified as yet. It is believed however that some plan will be worked out with Selective Service to protect many of them, especially those in their second year of pre-medical work, from the draft. How selection of students for medical schools will be handled; whether or not a student will be permitted to select a medical school or will be assigned to a medical school; and whether a student will be given basic military training at an army camp before being permitted to enter medical school are questions still to be answered by those working on the training program which will involve a total of approximately 250,000 students, including pre-medical students.

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of Ohio physicians commissioned in the Medical Corps of the Army or Navy since the December issue of *The Journal* went to press on November 23, and up to December 23. Most of them are on active duty; others are awaiting orders and assignment. Readers are urged to inform *The Journal* as to errors, if any, in this list and to send in the names of commissioned medical officers not included.

Name	City	Rank
Barnes, Nolan T.	Toledo.....	Lt. Comdr., U.S.N.
Black, Marion E.	Cleveland.....	Capt., U.S.A.
Bone, R. M.	Cleveland.....	Lt., U.S.N.
Brettell, Howard W.	Steubenville.....	Capt., U.S.A.



Safeguarding

YOUR USE OF

BENZEDRINE SULFATE TABLETS

Any potent drug should be administered under medical supervision, and Benzedrine Sulfate* is no exception.

In medical literature, the majority of the reports of undesirable reactions attributed to Benzedrine Sulfate have been traceable to cases of indiscriminate or unsupervised use. This is equally true of the often magnified and sensational reports in the lay press.

Obviously, these unfavorable reports greatly retarded the wider clinical use of this valuable therapeutic agent. From the very beginning, Smith, Kline & French Laboratories—as a matter of business judgment, to say nothing of ethical considerations—did what it could to keep Benzedrine Sulfate solely in the hands of the medical profession.

But our own unaided efforts never met with complete success. And, understandably concerned over the possibility of self-medication, certain physicians hesitated to employ Benzedrine Sulfate therapy.

However, when the Federal Food, Drug & Cosmetic Act of June, 1938, became effective, we immediately put Benzedrine Sulfate in the category of drugs to be sold on prescription only. The Act is strictly enforced and is supplemented by similar legislation in many states. Today, as a result, the physician can prescribe Benzedrine Sulfate, secure in the knowledge that there is little likelihood of its abuse.

**Brand of amphetamine sulfate*



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Name	City	Rank
Byrne, Thomas E.	Mentor	Lt. (j.g.) U.S.N.
Day, Geo. T.	Cleveland	Lt., U.S.N.
Dejak, John J.	Cleveland	1st Lt., U.S.A.
Eichner, Eduard	Cleveland	Lt., U.S.N.
Englerth, Fred L.	Dayton	Capt., U.S.A.
Feiman, Daniel T.	Canton	Lt., U.S.N.
Fessenden, W. B.	Cincinnati	Lt. Comdr., U.S.N.
Fleming, Peter D.	Cincinnati	1st Lt., U.S.A.
Gieringer, Lloyd	Toledo	Lt. Comdr., U.S.N.
Glazer, Alfred M.	Cincinnati	Capt., U.S.A.
Gove, Roger M.	Columbus	1st Lt., U.S.A.
Hammill, Gordon H.	Euclid	Capt., U.S.A.
Hudson, J. Robert	Cincinnati	1st Lt., U.S.A.
Huesman, A. J.	Cincinnati	Lt., U.S.N.
Lacey, Henry B.	Columbus	Major, U.S.A.
Levin, Leo	Cleveland	Capt., U.S.A.
Lynch, James	Cleveland	Lt. Comdr., U.S.N.
McGuire, Chas. W.	Elyria	1st Lt., U.S.A.
Montgomery, Henry K.	Dayton	1st Lt., U.S.A.
Morgan, Richard L.	Marion	1st Lt., U.S.A.
Pinnell, Earl J.	Cleveland	1st Lt., U.S.A.
Neeninger, John R.	Silverton	Lt. (j.g.) U.S.N.
Slivka, James E.	Cleveland	Lt., U.S.N.
Schroeder, Raymond H.	Quincy	1st Lt., U.S.A.
Smith, Emery V.	Cincinnati	1st Lt., U.S.A.
Smith, John Jos.	Cleveland	1st Lt., U.S.A.
Snyder, Warren G.	Steubenville	1st Lt., U.S.A.
Solier, Richard W.	Bryan	Lt., U.S.N.
Taggett H. O.	Rock Creek	Capt., U.S.A.
Tildes, J. H.	Cleveland	Lt., U.S.N.
Torrence, E. R.	Cleveland	Lt., U.S.N.
Warburton, R. T.	North Canton	Lt., U.S.N.
Weaver, Howard B.	Canton	Lt. Comdr., U.S.N.
Woldman, Victor F.	Cleveland	Lt. Comdr., U.S.N.
Wyand, H. H.	Cleveland	Lt. Comdr., U.S.N.
Wylie, L. B.	Cleveland	Capt., U.S.A.
Yarris, W. F.	Fostoria	Lt. (j.g.) U.S.N.
Zoss, Albert R.	Cincinnati	1st Lt., U.S.A.

WIN PROMOTIONS

The following Ohio physicians have been promoted to the rank indicated, since the December issue of *The Journal* went to press:

Name	City	Rank
Behm, Alton W.	Chardon	Capt., U.S.A.
Best, Marshall M.	Xenia	Lt. Col., U.S.A.
Brown, Wilbur Max	Mansfield	Major, U.S.A.
Burstein, Henry A.	Toledo	Major, U.S.A.
Del Vecchio, James J.	Yorkville	Major, U.S.A.
Gibbons, John T.	Celina	Major, U.S.A.
John, Henry J.	Cleveland	Lt. Col., U.S.A.
Johnston, Walter B.	Lakewood	Lt. Col., U.S.A.
Johnston, Albert M.	Marysville	Major, U.S.A.
Kane, Maurice M.	Greenville	Lt. Col., U.S.A.
Kaylor, Fred W.	Bellefontaine	Capt., U.S.A.
Lehman, Robert G.	Dayton	Lt. Comdr., U.S.N.
Martin, Geo. I.	Blanchester	Major, U.S.A.
Mikesell, H. L.	West Liberty	Lt. Col., U.S.A.
Myers, B. V.	Elyria	Capt., U.S.A.
Mynchenberg, Geo. C.	Elyria	Lt. Col., U.S.A.
Tyler, Geo. P., Jr.	Ripley	Lt. Col., U.S.A.
Wright, O. M.	Dayton	Lt. Comdr., U.S.N.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 2,335 Ohio physicians in the armed forces as of December 23 by counties. This list is unofficial. If there are errors in the tabulations *The Journal* would appreciate receiving corrections.

Adams	2	Champaign	8	Delaware	5
Allen	32	Clark	27	Erie	10
Ashland	10	Clermont	9	Fairfield	6
Ashtabula	17	Clinton	7	Fayette	2
Athens	11	Columbiana	9	Franklin	199
Auglaize	5	Coshocton	4	Fulton	5
Belmont	8	Crawford	9	Gallia	6
Brown	4	Cuyahoga	568	Geauga	3
Butler	25	Darke	7	Greene	8
Carroll	1	Defiance	3	Guernsey	5

Hamilton	304	Mahoning	88	Richland	40
Hancock	13	Marion	16	Ross	15
Hardin	7	Medina	12	Sandusky	12
Harrison	4	Meigs	1	Scioto	16
Henry	2	Mercer	5	Seneca	11
Highland	8	Miami	12	Shelby	7
Hocking	3	Monroe	1	Stark	85
Holmes	2	Montgomery	116	Summit	121
Huron	13	Morgan	1	Trumbull	26
Jackson	1	Muskingum	7	Tuscarawas	16
Jefferson	28	Noble	1	Union	1
Knox	11	Ottawa	8	Van Wert	9
Lake	17	Paulding	2	Vinton	2
Lawrence	7	Perry	4	Warren	3
Licking	17	Pickaway	3	Washington	6
Logan	9	Pike	2	Wayne	10
Lorain	32	Portage	2	Williams	9
Lucas	140	Preble	8	Wood	11
Madison	6	Putnam	5	Wyandot	3
Total					2335

IN OTHER FEDERAL SERVICES

The following Ohio physicians have accepted full-time appointments in other Federal services directly connected with war activities, some of them having been assigned to stations with the armed forces:

Asch, Solomon	Portsmouth	U.S.P.H.S.
Asst. Surgeon Res.		
Brackin, John T.	Youngstown	
Medical Officer		Vet. Adm.
Brandes, Emanuel B.	Cincinnati	
Passed Asst. Surgeon		U.S.P.H.S.
Brown, Henry A.	Chillicothe	
Passed Asst. Surgeon		U.S.P.H.S.
Craig, Robert M.	Dayton	
Asst. Surgeon		U.S.P.H.S.
Gerspacher, T. S.	Cleveland	
Passed Asst. Surgeon		U.S.P.H.S.
Hamburger, Morton	Cincinnati	
Special Government Research		
Herrmann, Walter L.	Portsmouth	
Asst. Surgeon		U.S.P.H.S.
Hebble, Jos. Newton	Springfield	
Passed Asst. Surgeon		U.S.P.H.S.
Jacoby, Geo. W.	Wooster	
Asst. Surgeon		U.S.P.H.S.
Keller, William S.	Cincinnati	
Surgeon Res.		U.S.P.H.S.
Kendall, H. W.	Dayton	
Surgeon		U.S.P.H.S.
Kile, Roy L.	Cincinnati	
Passed Asst. Surgeon		U.S.P.H.S.
L'ight, Wilbur B.	Lima	
Passed Asst. Surgeon		U.S.P.H.S.
Pastorelle, S. J.	Cleveland	
Passed Asst. Surgeon		U.S.P.H.S.
Reese, Harold J.	Youngstown	
Lt. (j.g.)		U.S.P.H.S.
Rex, E. Galen	McConnelsville	
Medical Officer		Vet. Adm.
Ruch, Ralph O.	Lima	
Captain		U.S.P.H.S.
Rueggesser, James M.	Cincinnati	
Special Government Research		
Ryan, Nelson W.	Cincinnati	
Passed Asst. Surgeon		U.S.P.H.S.
Schwenlein, Geo. X.	Cincinnati	
Asst. Surgeon		U.S.P.H.S.
Steiner, David L.	Lima	
Passed Asst. Surgeon		U.S.P.H.S.
Weber, Geo. F.	Delphos	
Captain		U.S.P.H.S.

The Doctors' Symphony Orchestra of Akron has temporarily suspended its activities because 30 per cent of its members are now serving in the armed forces. Dr. Alexander S. McCormick has been director during the 16 years of the orchestra's successful career. The concertmaster is D. H. Henninger, D.D.S., and the assistant concertmaster, Dr. Arthur Dobkin, is now serving overseas as a major in the Army.

WARTIME BOOM IN BABIES



Photograph Camp prenatal support (skeleton indrawn)



Today, more babies are on the way than in any time during the last 20 years! Naturally, there is a corresponding rise in the need and demand for prenatal supports.

The S. H. Camp and Company has developed over a period of more than 30 years—a *complete series* of maternity supports . . . each type scientifically designed and constructed . . . each type giving accurate support to the abdomen, pelvic girdle and spinal column.

In fact, not a single detail which will add to their clinical value has been neglected.

That these garments successfully measure up to the most stringent clinical requirements is evident—since they carry the approval of many leading gynecologists and obstetricians throughout the world.

The Camp series of prenatal supports comprise models suitable for all types of build. Patients are asked to return each month for adjustment of their prenatal supports. This service is given free of charge by all Camp-trained fitters.

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WAR NOTES

CLEVELAND'S Allen Memorial Medical Library last month became the beneficiary of the War Department's decision to move 80,000 volumes from the Army Medical Library in Washington to Cleveland. The books, valued at more than \$1,000,000, were transferred because of the danger of air raids in the capital and because of crowded conditions there, according to press reports. They will be available for use by Cleveland physicians as well as by Army medical officers. The Allen library thus becomes the only branch of the Army Medical Library outside Washington.

* * *

Lt. Col. Wilbur E. Beach, Van Wert physician, is commanding the Eleventh General Hospital now in training at Camp Livingston, La.

Maj. N. C. Schroeder, Kenton physician, has been named chief of surgical service at the Air Corps Station Hospital at Atlantic City, N. J., according to information received by his friends at home.

* * *

Lt. Col. Marshall M. Best, Xenia physician, writes his family from "Somewhere in England" that he was invited to play several piano numbers for Princesses Victoria and Marie Louise. Colonel Best was recently promoted to his present rank.

* * *

A special teaching course for Navy enlisted men has been instituted at the Cleveland Clinic, and a large group of pharmacists' mates are scheduled to enroll for it in January.

Maj. Lester C. Thomas, Lima physician, has been appointed chief of staff of Moore General Hospital, a 1750 bed Army hospital located at Swannanoa, N. Car., according to press reports.

* * *

Capt. Clark Pritchett, Columbus physician now a medical officer in the Army Air Corps, is head of the gastro-intestinal service of the Station Hospital at the San Antonio Aviation Cadet Center. He reports, in a letter to the Columbus Academy *Bulletin*, that "the men on the staff are of the highest caliber, every one a recognized specialist". "I work hard", he adds, "but love it".

* * *

Comdr. Charles C. Yanquell, former Norwalk resident and graduate of Western Reserve University School of Medicine, was recently promoted to his present rank and assigned to the

Naval Aviation Base at Norman, Okla. He had been senior medical officer of the aircraft carrier Yorktown during the attack on the Marshall and Gilbert Islands but was detached from that ship before the battle of Midway.

* * *

Lt. Ralph B. Cunningham, Lockland physician now in the Army medical corps, is stationed in the interior of New Guinea, according to a letter received by his wife in which he described the strange customs of the natives and the unusual growth on the island.

* * *

Lt. Comdr. Abe Cline, Dayton physician, writes that he has been assigned to a Naval Depot on an island in the South Pacific. "Incidentally", he says in his letter to *The Journal*, "the medical inspector for the U. S. Army forces on this island is Lt. Col. A. G. King, of Cincinnati—like myself, a gynecologist".

* * *

Capt. W. B. Bean, Cincinnati physician, is one of the medical officers who are doing interesting medical and physiological experiments at Fort Knox, Ky., with the Armored Forces troops under sub-zero arctic temperature conditions and in sweltering tropical heat.

* * *

Special courses for technical medical training of several thousand enlisted men were begun at nine different Army hospitals on Dec. 1. The students, who are furnished by the nine service commands, medical replacement centers, and ground and air force units, are being schooled in the technical phases of medicine, dentistry, pharmacy, surgery, veterinary medicine, roentgenology, and laboratory work.

* * *

Among the many significant statements by Rear Admiral Ross T. McIntyre, Navy Surgeon General, in his widely reported Chicago speech on the role of medicine in the war was the following:

"Doctors come in the second wave, right behind the Marines, and have to be in just as good physical condition as the men who do the fighting".

* * *

Fourth and fifth classes of Medical Administrative Corps officers to complete the training course at Camp Barkeley, Tex., were graduated



War Paint

In the midst of the blitz in England a lipstick became a symbol of democracy, bravely worn in defiance of that "wicked man's" attempt to shatter morale. Early in the history of the U. S. S. R. women protested against a ban on cosmetics, and it was lifted. These things are easy to understand when one reflects that cosmetics are an intimate part of a woman's life. They are essential to her well-being, her sense of personal fitness. When a woman knows she looks pretty she can face almost any situation with equanimity and courage. She needs her "war paint"; it bolsters her morale.

During the telling months ahead our industry may be deprived of certain raw materials. Packages and containers may have to be changed. Any great emergency is a test of resourcefulness. We believe that our industry will not be found lacking in that sterling American quality. Our research facilities are directed towards finding alternative raw materials that will be at least as satisfactory as those they replace. Come what may, we'll do our best to continue to supply American women with those aids to good grooming, those props to personality, that in their modest way contribute so much to national morale.

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News from Camps, Also Change In Address Solicited

The assistance of Ohio physicians in the armed forces in helping to make the "War Notes" an outstanding department of *The Journal* is solicited. It is hoped that those in the services will send in news items about themselves and their Ohio buddies as the folks back home are anxious to know about them.

Moreover, *The Journal* is trying hard to get copies of each issue into the hands of members now in the armed forces as promptly as possible. It cannot do so unless changes of addresses are submitted promptly. Those in the services should keep in close touch with the circulation department of *The Journal* to insure delivery. If a *Journal* is late, it should be remembered that the mails are clogged and some delay unavoidable but that everything possible is being done to get copies to the camps and war fronts soon after the date of issuance.

and commissioned on Oct. 17 and Nov. 25. They were commissioned second lieutenants and were given assignments where they could relieve medical officers for more professional duties. These two groups bring to a total of approximately 1500 the number of men trained at this Medical Replacement Center since the courses for Medical Administrative officers were begun last summer.

* * *

Microfilms of current medical literature will be made for Army medical units on overseas duty by the Army Medical Library, according to a recent announcement. These can be obtained on request of the commanding officer of the unit directed to the Librarian, Army Medical Library, 7th St. and Independence Ave. SW, Washington, D.C. Such requests should specify the journal and articles to be filmed and whether it is desired that the service be continued.

* * *

Lt. Comdr. D. R. Talbot, Mansfield physician now in the Navy medical corps, is stationed on an island in the Caribbean. In a recent letter to *The Gyroscope*, official publication of the Gyro Club, he writes: "My work is interesting and varied; sometimes I am operating in the hospital ashore—sometimes I make calls on ships where all sorts of medical and surgical problems must be disposed of".

Lt. Maurice B. Rusoff, Columbus physician and former member of the medical staff of the Ohio Industrial Commission, is stationed at the 99th Evacuation Hospital, Camp Shelby, Miss. He writes that the rigorous training has virtually made commandos of the medical officers there. "But seriously", he adds, "desert and jungle warfare are stressed. The physical part is intense and I believe, so far, beneficial".

* * *

Capt. G. O. Thompson, Alliance physician now a medical officer in the Army Air Forces, has been transferred from his former post at Robins Field, Ga., to Hill Field, Ogden, Utah.

* * *

You never know what the duties of a medical officer might include. Take the case of Maj. Guy Brugler and Maj. William B. Wartman, Cleveland physicians in Australia with the Lakeside Unit. They were recently requested by some of the enlisted men in their outfit to judge a jitterbug contest. And they had to go clear to Australia to discover that rug-cutting is "the most amazing demonstration of what the human physiology can stand when demands are made upon it", as Major Brugler puts it.

* * *

Capt. Carr E. Dix, Columbus physician, is on the surgical staff of a station hospital with the American Expeditionary Force in North Africa.

* * *

Lt. Col. Maurice M. Kane, Greenville physician, has been transferred from the 88th Infantry Division, Camp Gruber, Okla., to the 313th Medical Battalion at the same post. He was recently promoted to his present rank.

* * *

Maj. Beecher L. Smith, Columbus physician serving as chief of the urological service at the station hospital, Camp Atterbury, Ind., has been assigned as executive officer of this hospital.

* * *

Lt. Col. George P. Tyler, Jr., Ripley physician and secretary of the Brown County Medical Society for several years, has been stationed at Scott Field, Ill. A captain in World War I, Colonel Tyler was recently promoted to his present rank.

* * *

Here's what Don Caswell, United Press correspondent with American forces in New Guinea, has to say about the medical services available to the soldiers on that battle front:

"In the swampy, feverish jungles of New Guinea . . . army surgeons are performing daily miracles unheard of in the World War. I have just visited an American field hospital in the New

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.



A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia

Glisson, writing in 1671, described an ingenious use of swaddling bands — “first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Exercise . . . helpeth to restore the crooked Bones. . . .”

STRAPPED FOR RICKETS

SWADDLING was practised down through the centuries, from Biblical times to Glisson's day, in the vain hope that it would prevent the deformities of rickets. Even in sunny Italy swaddling was a prevailing custom, recommended by that early pediatrician, Soranus of Ephesus, who discoursed on “Why the Majority of Roman Children are Distorted.”

“This is observed to happen more in the neighborhood of Rome than in other places,” he wrote. “If no one oversees the infant's movements, his limbs do in the generality of cases become twisted. . . .

Hence, when he first begins to sit he must be propped by swathings of bandages. . . .” Hundreds of years later swaddling was still prevalent in Italy, as attested by the sculptures of the della Robbias and their contemporaries. For in-

fant's who were strong Glisson suggested placing “Leaden Shooes” on their feet and suspending them with swaddling bands in mid-air.

How amazed the ancients would have been to know that bones can be helped to grow straight simply by internal administration of a few drops of Oleum Percomorphum. What to them would have been a miracle has become a commonplace of science. Because it can be administered in drop dosage, Oleum Percomorphum is especially suitable for young

and premature infants, who are most susceptible to rickets. Its vitamins derived from natural sources, this product is rich in vitamins A and D. Important also to your patients, Oleum Percomorphum is an economical antiricketic.

EXIGENCY OF WAR

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Guinea bush country, where more than 200 wounded soldiers have been treated since the Buna offensive started Nov. 19.

"In the last war, surgeons would have expected at least a score of amputations from such an assortment of damaged bodies. But up to today (Dec. 8) not a single one has been performed here."

* * *

Lt. Theodore Berg, Elyria physician, is serving as depot surgeon at the Fort Worth Quartermaster Depot, Fort Worth, Tex., and is closely connected with the depot's industrial hygiene program.

* * *

Maj. Fred J. Hunter, son of Dr. and Mrs. F. J. Hunter, Marion, and a 1934 graduate of Ohio State University College of Medicine, was recently put in charge of maxillofacial surgery with troops on maneuvers near Nashville, Tenn.

* * *

Capt. R. D. Snyder, Dayton physician, is now serving as chief surgeon and head of surgical service at Tinker Field, Oklahoma City, Okla., air depot. He was recently transferred to the Oklahoma post from Patterson Field.

* * *

From Lt. (j.g.) Harlin G. Knierim, Mansfield physician now serving on the destroyer U.S.S. Goff, comes the following letter to *The Journal*: "Enjoy receiving the Ohio State Medical Journal very much, and wish to notify you of my change of duty so that it may continue in good order. Have been with this destroyer for a short time and enjoy the duty a lot. The Journal is a great aid in keeping up with the newer trends, so keep it coming."

* * *

By September of this year, 600 ambulances had been sent abroad by the British-American Ambulance Corps. These are principally of two types—the lighter ambulance used in industrial areas and costing about \$1,300, and the equatorial type used in desert warfare, costing about \$2,000. Also supplied by the organization are motorcycle ambulances, capable of traveling 90 miles an hour over rough terrain, and mobile X-ray units.

* * *

Dr. T. S. Wilson, Findlay, felt particularly close to the Army medical corps on his 86th birthday when he received the following greetings from Col. William H. Gordon, of Borden General Hospital, Chickasha, Okla.: "Dear Dr. Wilson: On Dec. 6, if I remember correctly, you will celebrate your 86th birthday. I wish to congratulate you. Also I want to thank you that you so ably cared for my mother on Nov.

10, 1890, that I arrived in this world safely. I hope I may be able to greet you on many more December sixths".

* * *

Capt. F. H. Jones, Columbus physician, writes: "I am now commanding a 'clearing company' in a medical regiment. This is a field hospital company with 17 officers and 184 men—seven captains and 10 lieutenants. It is quite a job too. My new address is Co. 'D', 66th Medical Regiment, Camp Barkeley, Tex".

Public Lectures on Wartime Health Subjects Arranged

A series of six Sunday afternoon lectures by members of the Cleveland Academy of Medicine on wartime public health subjects has been announced by Dr. M. Paul Motto, chairman of the academy's health education committee.

Beginning January 10, the lectures will be given each Sunday at 3:30 p. m. in Prentiss Auditorium of the Cleveland Health Museum, which is co-operating with the academy in their presentation. All lectures will be open to the public, free of charge.

All the lecturers are members of the faculty of the School of Medicine of Western Reserve University.

Dates, speakers and subjects follow:

January 10—Dr. Neil T. McDermott, assistant psychiatrist at University Hospitals and senior instructor in psychiatry. "War Nerves".

January 17—Dr. Harley A. Williams, assistant clinical professor medicine. "Controlling Epidemics".

January 24—Dr. Roscoe D. Leas, senior instructor in medicine, "The Whys of Blood Banking".

January 31—Dr. Robert F. Parker, associate professor of medicine, "Combating Soldiers' Health Hazards".

February 7—Dr. Harold D. Green, associate professor of physiology, "Body Behavior in Flying".

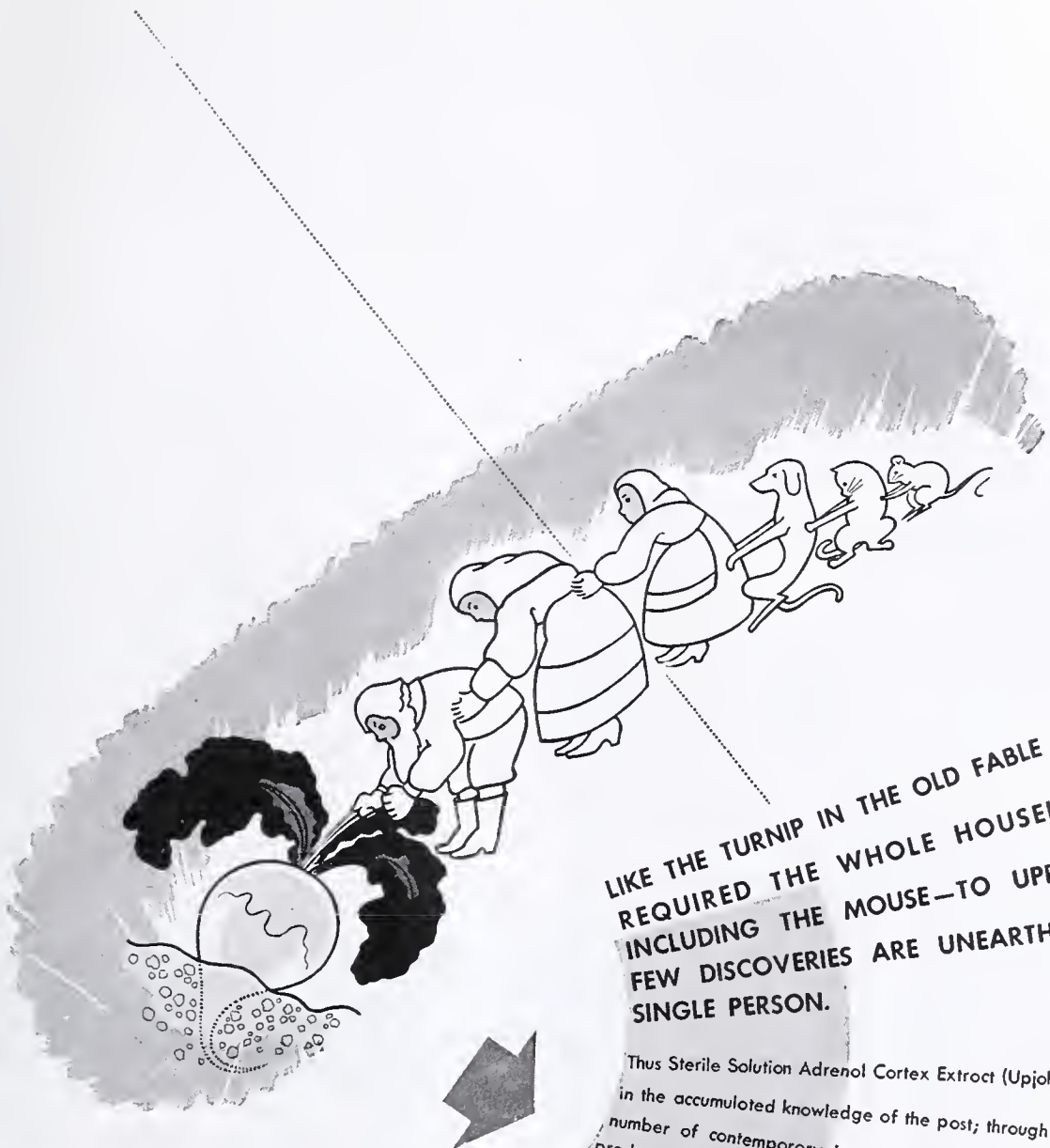
February 14—Dr. E. B. Buchanan demonstrator of hygiene, "Dispelling Modern Food Fallacies".

Coming Meetings

Ohio State Medical Association, Columbus, March 30-31.

Fifth Annual Forum on Allergy, Cleveland, Jan. 9-10.

American Academy of Orthopaedic Surgeons, Chicago, Jan. 17-21.



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In Memoriam

Samuel S. Barrett, M.D., Nevada; Western Reserve University School of Medicine, 1895; aged 80; died November 5. Dr. Barrett practiced in Wyandot County for 45 years. He was a member of the Baptist Church and the Masonic and K. of P. Lodges. Four children survive including Dr. Carey C. Barrett and Dr. Arthur D. Barrett, both of Lexington, Ky., and a brother, Dr. F. Barrett, Lakeview.

Albert L. Bowman, M.D., Toledo; Toledo Medical College, 1896; aged 77; died October 14. Dr. Bowman practiced in Ottawa County for many years, retiring in 1936 after having been located in Martin for 28 years. He had previously practiced in Elliston and Toledo. Surviving are a son, a daughter and a brother—Dr. J. C. Bowman, Genoa.

Thomas A. Costello, M.D., Cleveland; University of Wooster, Medical Department, Cleveland, 1900; aged 69; died October 15. Dr. Costello retired shortly after the close of World War I, in which he had served as a medical officer.

Benjamin Charles Deeley, M.D., Pasadena, Calif.; University of Wooster, Medical Department, Cleveland, 1908; aged 58; member of the Ohio State Medical Association and the American Medical Association; died November 29. A native of Sandusky, Dr. Deeley retired from practice about two years ago and last March moved to California. He was a member of the Masonic Order. Surviving are his widow, a daughter and two sons.

Ephraim Elmer Ellsworth, M.D., Ironton; University of Louisville School of Medicine, 1894; aged 78; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 12. A former secretary and president of the Lawrence County Medical Society, Dr. Ellsworth practiced medicine for nearly 50 years. He was a member of the I.O.O.F. Surviving are his widow, two sons and a sister.

John Dane Fouts, M.D., Dayton; University of Cincinnati College of Medicine, 1910; aged 56; former member of the Ohio State Medical Association and the American Medical Association; member of the American Academy of Ophthalmology and Oto-Laryngology; died November 10. Dr. Fouts was a past-president of the staff of Miami Valley Hospital. He practiced in Dayton for 30 years. His widow, a son and two sisters survive.

Lester McCutcheon Githens, M.D., Wren; Electric Medical College, Cincinnati, 1921; aged 48; former member of the Ohio State Medical As-

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sociation and the American Medical Association; died November 17. Dr. Githens practiced in Van Wert County for 20 years. He served with the Army in World War I, and was a member of the American Legion, the Masonic Order and the Eagles Lodge. Surviving are his widow, a daughter and a son.

August Kipp, M.D., Cincinnati; Cincinnati College of Medicine, 1890; aged 94; died November 12. A native of Germany, Dr. Kipp practiced in Mansfield until his retirement in 1918. His widow and two daughters survive.

Henry Clay Lindersmith, M.D., Sherwood; Barnes Medical College, St. Louis, 1894; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died November 22. Dr. Lindersmith retired last year after having practiced in Defiance County for 47 years. He was county health commissioner for five years, and had been president of the Sherwood board of education and president of the county general health district. A daughter survives.

James Gordon Murfin, M.D., Portsmouth; University of Pennsylvania School of Medicine, 1902; aged 64; former member of the Ohio State Medical Association and the American Medical Association; died December 3. Dr. Murfin was a major in the medical corps in World War I, and since that time had practiced in Portsmouth. His widow and a brother survive.

Andrew Bodwell Nelles, M.D., Columbus; University of Michigan Homeopathic Medical School, 1890; aged 74; died November 23. A native of Canada, Dr. Nelles practiced in Columbus until his retirement two years ago. He had been a member of the staff of Children's Hospital. His widow and a daughter survive.

Charles Edward Roderick, M.D., Dayton; Medico-Chirurgical College, Philadelphia, 1914; age 53; member of the West Virginia State Medical Association, the American Medical Association and the American Society of Clinical Pathologists; died November 6. Prior to locating in Dayton, Dr. Roderick was pathologist for the Battle Creek Sanatorium for 22 years. Surviving are his widow, four daughters and a sister.

Jesse Austin Spence, M.D., Mansfield; Miami Medical College, Cincinnati, 1887; aged 82; member of the Ohio State Medical Association and the American Medical Association; died November 11. Dr. Spence retired in 1930 after having practiced in Mansfield for 19 years as a physician for the Pennsylvania Railroad. He had previously practiced for that company in Crestline and Pittsburgh. Dr. Spence was a member of the Masonic Order and the Presbyterian

Church. He had also served on the local school board. His widow, two sisters and a brother survive.

James F. Simkins, M.D., Circleville; University of Pittsburgh School of Medicine, 1891; aged 84; died November 27. Dr. Simkins practiced in Pickaway County for many years. His widow and a son survive.

Harry Stein, M.D., Sandusky; Syracuse University College of Medicine, 1930; aged 43; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 7. Dr. Stein practiced in Sandusky for two years. His widow, three brothers and two sisters survive.

Robert Reynolds Vogt, M.D., Cleveland; University of Wooster, Medical Department, Cleveland, 1894; aged 70; died November 8. Dr. Vogt practiced in Cleveland for 45 years. Surviving are his widow and a brother, Dr. D. F. Vogt, Cleveland.

David K. Este Weatherhead, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1898; aged 67; died November 4. Dr. Weatherhead practiced medicine in Cincinnati for a number of years, but retired from active practice to enter the drug business. His widow and three sisters survive.

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1. Anesthesia and Analgesia 21:229, July-August, 1942
2. Canadian Med. Assoc. J.: 46:345, April, 1942

Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D.,
CINCINNATI)

BUTLER

Program for the dinner meeting of the Butler County Medical Society, held Dec. 16 at the Anthony Wayne Hotel, Hamilton, consisted of a "Happy Hour" presented by the enlisted men of the Naval Training School at Miami University. The dinner was in honor of the society members' wives.—Bulletin.

CLERMONT

Officers of the Clermont County Medical Society for 1943 are: Dr. Warren E. Thomas, Milford, president; Dr. F. S. Skeen, Batavia, vice president; Dr. J. M. Coleman, Loveland, secretary-treasurer; Dr. Allan B. Rapp, Owensville, chairman of the legislative and public relations committees; and Doctors Thomas and Coleman, delegate and alternate, respectively.—J. M. Coleman, M.D., Secy.

CLINTON

Dr. Harold Ray, Xenia, discussed treatment of diseases and injuries of the eye at the meeting of the Clinton County Medical Society on Nov. 3 at the General Denver hotel, Wilmington.—James E. Rose, M.D., Secretary.

HAMILTON

In December the Cincinnati Academy of Medicine presented the following programs:

Dec. 1—"The Dynamics of Shock as related to its Recognition and Management" by Dr. Virgil

H. Moon, professor of pathology, Jefferson Medical College, Philadelphia.

Dec. 15—"Cardiac Symptoms in the Absence of Demonstrable Heart Disease" by Dr. Isaac Starr, Hartzell Research Professor of Therapeutics, University of Pennsylvania School of Medicine, Philadelphia.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

DARKE

Officers of the Darke County Medical Society for 1943 are: Dr. Gilbert E. Sayle, Greenville, president; Dr. J. E. Gillette, Versailles, vice president; Dr. W. D. Bishop, Greenville, secretary-treasurer; Dr. A. F. Sarver, Greenville, legislative committee chairman; Dr. C. J. Mills, Greenville, preparedness committee chairman; Dr. C. I. Stephen, Ansonia, delegate; and Dr. P. G. Lenhert, Arcanum, alternate.—W. D. Bishop, M.D., Secretary.

MONTGOMERY

"Present Day Gout" was the subject of Dr. R. K. Bartholomew, of the Henry Ford Hospital, Detroit, when he addressed the Montgomery County Medical Society at its regular meeting, Dec. 4, in the society's auditorium, Dayton.

GREENE

Officers of the Greene County Medical Society for 1943 are: Dr. H. C. Schick, Xenia, president; Dr. P. B. Wingfield, Yellow Springs, vice president; Dr. R. C. Henderson, Xenia, secretary-treasurer; Dr. F. M. Chambliss, Xenia, legislative

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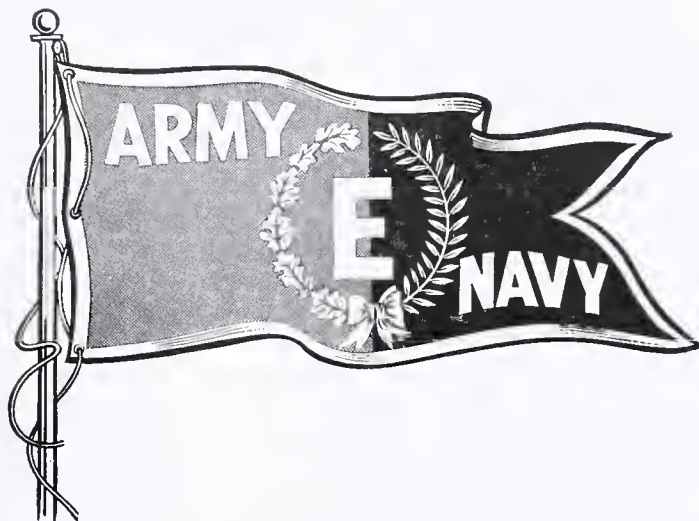
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committee chairman; Dr. C. G. McPherson, Xenia, delegate; and Dr. P. D. Espey, Xenia, alternate.—Roger C. Henderson, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

A sound movie on peptic ulcer was exhibited at the meeting of the Lima and Allen County Academy of Medicine at Lima Memorial Hospital Dec. 15.—C. Badertscher, M.D., Secretary.

AUGLAIZE

Officers of the Auglaize County Medical Society for 1943 are: Dr. E. F. Heffner, Wapakoneta, president; Dr. T. H. Will, Minister, vice president; Dr. Charles C. Berlin, Wapakoneta, secretary-treasurer; Dr. Guy E. Noble, St. Marys, legislative committee chairman; Doctor Heffner, preparedness committee chairman; Dr. R. C. Hunter, Wapakoneta, delegate; and Dr. Elizabeth Y. Kuffner, St. Marys, alternate.—Charles C. Berlin, M.D., secretary.

New officers were elected at the society's meeting Dec. 10 in the county courthouse, Wapakoneta. Preceding the business meeting a discussion of electric shock therapy in mental disorders was presented by Dr. E. H. Crawfis, of the Lima State Hospital Staff.—News clipping.

CRAWFORD

Officers of the Crawford County Medical Society for 1943 are: Dr. M. L. Helfrich, Galion, president; Dr. E. R. Schoolfield, Bucyrus, vice president; Dr. R. M. Malone, Galion, secretary-treasurer; Dr. W. G. Carlisle, Bucyrus, legislative committee chairman; Dr. C. A. Marquart, Crestline, delegate; and Dr. K. H. Barth, New Washington, alternate.—M. L. Helfrich, M.D., acting secretary.

New officers of the Auxiliary to the Crawford County Medical Society are: Mrs. C. J. Griebing, Galion, president; Mrs. C. A. Marquart, Crestline, president-elect; Mrs. R. M. Malone, Galion, vice president; and Mrs. W. M. Corwin, Galion, secretary-treasurer.—Mrs. C. A. Lingenfelter, retiring president.

MARION

Members of the Marion Academy of Medicine, at their meeting Nov. 5 at City Hospital, heard a discussion of "Aspects of Infant Feeding" by Dr. Frederick W. Rea, Marion.

MERCER

Officers of the Mercer County Medical Society for 1943 are: Dr. R. B. Benning, Ft. Recovery, president; Dr. Ralph J. Beare, Celina, vice president; Dr. A. J. Rawers, Celina, secretary-treasurer; Dr. R. G. Schmidt, Celina, legislative and preparedness committees chairman; Dr. John J. Shea, Coldwater, censor; Dr. R. E. Riley, Celina,

delegate; and Dr. P. W. Fishbaugh, Mendon, alternate.—A. J. Rawers, M.D., secretary.

SENECA

Officers of the Seneca County Medical Society for 1943 are: Dr. E. F. Ley, Tiffin, president; Dr.

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R. R. Hendershott, Tiffin, vice president; Dr. V. L. Magers, Tiffin, secretary-treasurer; Doctor Hendershott, legislative committee chairman; Dr. R. C. Chamberlain, Tiffin, preparedness committee chairman; and Doctor Hendershott and Doctor Chamberlain, delegate and alternate respectively. —V. L. Magers, M.D., secretary.

VAN WERT

Officers of the Van Wert County Medical Society for 1943 are: Dr. W. E. Lawhead, president; Dr. R. E. Shell, vice president; Dr. G. A. Edwards, secretary-treasurer; Dr. C. R. Keyser, chairman of the legislative and preparedness committees; and Doctor Lawhead and Doctor Edwards, delegate and alternate, respectively. All are of Van Wert.—G. A. Edwards, M.D., secretary.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

DEFIANCE

Officers of the Defiance County Medical Society for 1943 are: Dr. J. S. Hull, Hicksville, president; Dr. John J. Fauster, Defiance, vice president; Dr. E. P. Mitchell, Defiance, secretary-treasurer; Dr. George W. DeMuth, Sherwood, chairman of legislative and preparedness committees; Dr. D. J. Slosser, Defiance, delegate; and Dr. P. B. Newcomb, Defiance, alternate.—E. P. Mitchell, M.D., secretary.

FULTON

Officers of the Fulton County Medical Society for 1943 are: Dr. C. F. Hartmann, Wauseon, president; Dr. A. M. Wilkins, Delta, vice president; Dr. George McGuffin, Pettisville, secretary-treasurer; Dr. R. W. Reynolds, Fayette, legislative and preparedness committees, chairman; Dr. C. L. Hutchins, Delta, medical economics committee chairman; Dr. Harold Heffron, Metamora, delegate; and Dr. T. F. Smyth, Lyons, alternate.—George McGuffin, M.D., secretary.

LUCAS

The Academy of Medicine of Toledo and Lucas County held the following meetings in December:

Dec. 4—Regular general meeting at the Toledo Club. Dr. Frank N. Wilson, professor of medicine at the University of Michigan Medical School, presented an illustrated lecture on "Life and Medicine in South America". Wives of the Academy members were their guests at this dinner meeting.

Dec. 11—Annual Medico-Dental Meeting in the banquet room of the Toledo Hospital. This was the yearly gathering of the Academy and the Toledo Dental Society. Following a dinner, Dr. Richard H. Freyberg, assistant professor of medicine at the University of Michigan Medical School, gave an illustrated lecture on "The Role of Infection in Relation to Arthritis".

Dec. 18—A joint meeting with the Toledo Council of Social Agencies in the Academy building.

PUTNAM

Officers of the Putnam County Medical Society for 1943 are: Dr. J. A. Harold, Ottawa, president;

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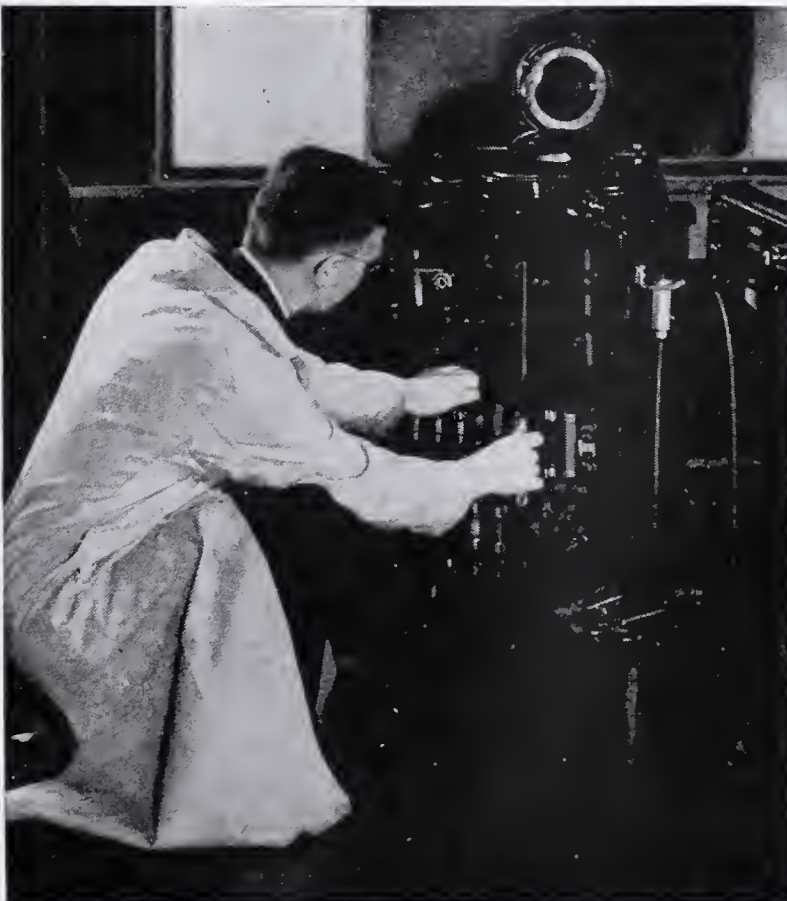
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WOOD

Dr. W. H. Meffley, Toledo, read a paper on carcinoma of the colon at the regular dinner meeting of the Wood County Medical Society on Bowling Green University Campus Dec. 3. Reviewing 56 cases from his own records, Doctor Meffley cited points which aid the general practitioner in making early diagnosis.

The following officers of the society were re-elected for the coming year: Dr. F. V. Boyle, Bowling Green president; Dr. E. H. Mercer, Sr., Bowling Green, vice president and secretary-treasurer; Dr. R. D. Barr, Grand Rapids, legislative committee chairman; Dr. H. E. Whitacre, Bowling Green, defense committee chairman; Dr. Earl D. Foltz, North Baltimore, delegate; and Dr. E. A. Powell, North Baltimore, alternate.—R. D. Barr, M.D., *Journal* correspondent.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Officers of the Ashtabula County Medical Society for 1943 are: Dr. H. K. Lynne, Jefferson, president; Dr. A. M. Mills, Ashtabula, vice president; Dr. W. T. Lowry, Jefferson, secretary-treasurer; Dr. R. B. Wynkoop, Ashtabula, chairman of legislative and preparedness committees and delegate to the state meeting; and Dr. P. J. Collander, Ashtabula, alternate.—W. T. Lowry, M.D., secretary.

CUYAHOGA

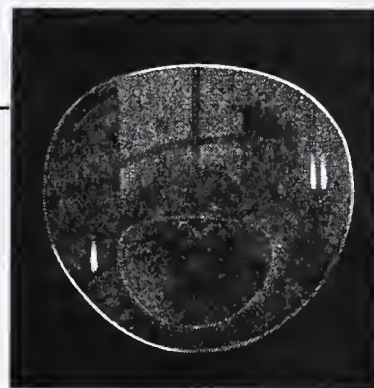
The following meetings were presented in December by the Academy of Medicine of Cleveland:

Dec. 4—Clinical and Pathological Section meeting, St. John's Hospital. Speakers and their subjects were: Dr. Farrell T. Gallagher, case reports on vitalium tube reconstruction of common bile duct and intestinal obstruction due to endometriosis; Dr. W. M. Gill, "Present Day Thought on Chronic Alcoholism;" Dr. Harry Sneiderman, "Two Cases of Hematomole;" Dr. J. R. Ripton, "Uterine Fibromyoma Complicating Pregnancy;" Dr. William Novince, case reports of psittacosis and coronary thrombosis in a 29-year-old female; and Dr. David Steel, "Palliation in Advanced Malignancy".

Dec. 18—Downtown Academy meeting at Hotel Cleveland. Dr. A. C. Ivy, professor of physi-



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* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154;
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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ology, Northwestern University, discussed "Enterogastrone; Its Physiological and Therapeutic Significance". Preceding Doctor Ivy's paper, Dr. J. P. Quigley, of the department of physiology, Western Reserve University School of Medicine, discussed "Recent Observations on the Pyloric Sphincter, with Special Reference to its Role in Gastric Evacuation."

GEAUGA

Officers of the Geauga County Medical Society for 1943 are: Dr. A. David Price, Chardon, president; Dr. R. Keith Miles, Thompson, vice president; Dr. Isa Teed Crampton, Burton, secretary-treasurer; Dr. Walter C. Cory, Chardon, legislative committee chairman; and Dr. William A. Reed, Burton, preparedness committee chairman.—Isa Teed Crampton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

Dr. E. H. Meacham, Kent, retiring president of the Portage County Medical Society chose the topic "Medicine in War Time" for his presidential address at the annual meeting of the society at Robinson Memorial Hospital, Ravenna, Dec. 3. Dr. R. L. Rutledge, Sixth District Councilor, also talked to the society's members about some of the problems facing medical organizations now. Besides the business session there was a panel on Caesarian section, in which Dr. S. U. Sivon, Dr. J. S. Deyell, and Dr. P. H. Zinkhan, all of Ravenna, participated.

New officers of the society, elected at the meeting, are: Dr. John R. Turner, president; Dr. Joseph C. Fiala, vice president; Dr. Emily J. Widdecombe, secretary-treasurer; Dr. Elizabeth A. Leggett, censor; and Doctor Turner and Doctor Fiala, delegate and alternate, respectively. All are of Kent.—Emily J. Widdecombe, M.D., secretary.

STARK

New officers of the Stark County Medical Society, elected at the society's annual meeting Dec. 10 at the Canton Elks Club, are: Dr. K. E. Reighard, Alliance, president; Dr. D. D. Shontz, Massillon, president-elect; Dr. C. F. Schmitt, Canton, secretary-treasurer; Dr. R. L. Rutledge, Alliance, legislative committee chairman; Dr. J. E. Purdy, Canton, preparedness committee chairman; Dr. L. E. Anderson, Greentown, Dr. C. B. King, Canton, and Doctor Purdy, delegates; and Dr. L. L. Frick, North Canton, alternate.—Clair B. King, M.D., retiring secretary.

SUMMIT

"Diabetes Mellitus" was the subject of a paper by Dr. O. P. Allen, Akron, presented at the meeting of the Summit County Medical Society Dec.



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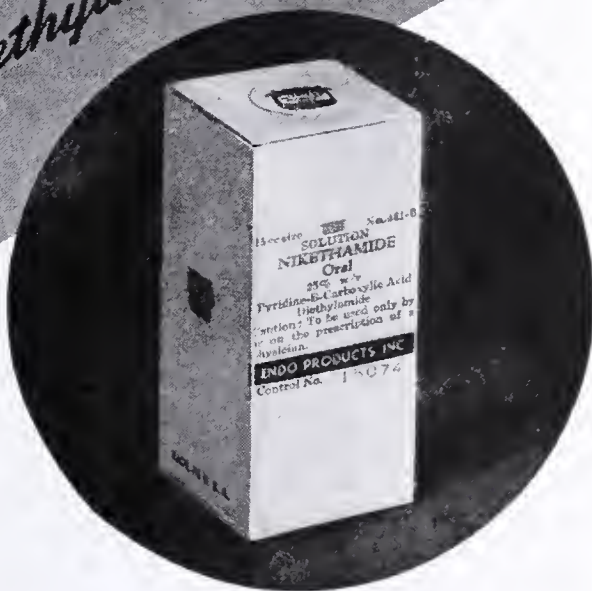
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president; Dr. Harry F. Kurtz, Millersport, vice president; Dr. Carl W. Brown, Lancaster, secretary-treasurer; Dr. C. G. Axline, Lancaster, legislative committee chairman; Dr. C. H. Hamilton, Lancaster, preparedness committee chairman; Dr. L. E. Stenger, Lancaster, delegate; and Dr. E. B. Roller, Lithopolis, alternate.—Carl W. Brown, M.D., secretary.

GUERNSEY

Officers of the Guernsey County Medical Society for 1943 are: Dr. F. B. Kantzer, Quaker City, president; Dr. H. L. Wells, Cambridge, vice president; Dr. M. S. Lawrence, Quaker City, secretary-treasurer; Dr. Fred W. Lane, Cambridge, legislative and preparedness committees chairman and delegate; and Dr. M. J. Thomas, Cambridge, alternate.—M. S. Lawrence, M.D., secretary.

MORGAN

Officers of the Morgan County Medical Society for 1943 are: Dr. D. G. Ralston, McConnellsville, president; Dr. C. E. Northrup, McConnellsville, secretary-treasurer and chairman of the legislative and preparedness committees; and Dr. C. V. Davis, Pennsville, delegate.—C. E. Northrup, M.D., secretary.

Ninth District

(COUNCILOR: GILBERT R. MICKLETHWAITE, M.D., PORTSMOUTH)

JACKSON

Officers of the Jackson County Medical Society for 1943 are: Dr. Mel D. Smith, Wellston, president; Dr. C. C. Fitzpatrick, Jackson, secretary-treasurer; Dr. J. L. Frazer, Wellston, legislative committee chairman; Dr. G. A. Parry, Jackson, preparedness committee chairman; Dr. J. S. Hunter, Jackson, delegate; and Dr. B. J. Allison, Oak Hill, alternate.

Tenth District

(COUNCILOR: GEORGE T. HARDING, III, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs in December:

Dec. 7—Dr. Edwin J. Stedem, Columbus, discussed endometriosis at the Academy's regular meeting in the Columbus Art Gallery. Following his paper the Academy members witnessed a new motion picture prepared by the eminent Russian physician, Academician Nicolai Burkenko, entitled "Physiological Reactions in Surgery of Abdomen, Chest, and Brain".

Dec. 21—Dr. Warren G. Harding, Columbus physician who practiced medicine for several

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years in Australia, spoke on "Medical Practice in the South Pacific".—Bulletin.

MORROW

Officers of the Morrow County Medical Society for 1943 are: Dr. F. M. Hartsook, Cardington, president; Dr. E. C. Sherman, Cardington, vice president; Dr. F. H. Sweeney, Mt. Gilead, secretary-treasurer; Dr. C. S. Jackson, Mt. Gilead, legislative committee chairman; Dr. J. P. Ingmire, Mt. Gilead, preparedness committee chairman; Dr. William L. Murphy, Cardington, delegate; and Dr. W. E. DeVol, Marengo, alternate.—Frank H. Sweeney, M.D., secretary.

UNION

Officers of the Union County Medical Society for 1943 are: Dr. Angus MacIvor, Marysville, president; Dr. B. E. Ingmire, Plain City, vice president; Dr. James M. Snider, Marysville, secretary-treasurer; Dr. F. C. Callaway, legislative committee chairman; Dr. F. M. Wurtsbaugh, Richwood, preparedness committee chairman; Dr. H. C. Duke, Richwood, delegate; and Dr. J. D. Boylan, Milford Center, alternate.—James M. Snider, M.D., secretary.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

Officers of the Ashland County Medical Society for 1943 are: Dr. H. Wayne Smith, president; Dr. L. Harold Martin, vice president and secretary-treasurer; Dr. M. D. Shilling, legislative committee chairman; Dr. C. B. Meuser, preparedness committee chairman; Doctor Shilling, delegate; and Dr. George P. Riebel, alternate. All are of Ashland.—H. Wayne Smith, M.D., president.

LORAIN

Dr. Carl W. Sawyer, Marion, addressed members of the Lorain County Medical Society at their regular meeting Dec. 8 at the Elyria Elks' Club on the subject "The Premenopause Psychoses".—L. H. Trufant, M.D., secretary.

MEDINA

Dr. Ross M. Knoble, Eleventh District Councilor, discussed "The Position of the Medical Profession Today" at the special meeting of the Medina County Medical Society held Oct. 8 at the Evanon in Medina. Officers elected at the meeting are:

Dr. N. J. M. Klotz, Wadsworth, president; Dr. R. F. Fasoli, Brunswick, vice president; Dr. C. L. Crum, Lodi, secretary-treasurer; Dr. R. L. Mansell, Medina, chairman of the legislative and preparedness committees; Dr. F. C. Reutter, Medina, delegate; and Dr. E. C. Bell, Lodi, alternate.—C. L. Crum, M.D., secretary.

The Physician's Bookshelf

Your Hearing, How to Preserve and Aid It by Wendell C. Phillips and H. G. Rowell, M.D. (49c, *The World Publishing Company, 2231 W. 110th St., Cleveland, O.*) has been written by these eminent authorities in an effort to save some persons from developing hearing defects and save others who now have hearing defects from unintentional neglect which may result in disaster. It is a book that everyone who is interested in a handicapped person should read.

Civilian Health in War Times by Francis Dieuaide (\$2.50, *Harvard University Press, Cambridge, Mass.*) is an attempt to provide the general reader with a broad statement in outline of the various aspects of health in this country in relation to the war. Few of us, even physicians, have an adequate conception of the problems which a long hard war will bring to us. The book therefore is very timely. It discusses among other things nutrition, increasing strength, safety from infectious diseases, clothing, maternity, the aged, the job and recreation, the use of doctors and nurses, mental calm and vigor.

Nutrition and the War by Geoffrey Bourne (\$1.25, *Second Edition, Cambridge University Press*) is full of information on food values as they should be set forth to the housewife. It is done neatly, simply, and in a very few words.

Nutrition and Diet Therapy, A Textbook of Dietetics by Fairfax T. Proudfit (\$3.25, *Eighth Edition, Macmillan Company, New York*) has demonstrated its worth as a textbook and is now brought up to date in keeping with our current interest in the subject.

When I Grow Up I'll Be a Nurse by Lillian Rifkin (\$1.25, *Lothrop, Lee & Shepard Co., New York City*) presents the career of nursing to children from seven to ten years of age. It makes a fascinating fact book for all children who ask questions about what it means to be a nurse.

Sulfanilamide in General Practice by Wesley W. Spink (\$3.00, *Second Edition, Yearbook Publishing Company, Chicago*) has been brought up to date. It is based on a University of Minnesota hospital where approximately 2000 patients have been treated with these drugs. This book unquestionably should be in the library of every physician.

Doctors of the Mind by Marie B. Ray (\$3.00, *Little, Brown & Co., Boston*) presents one of the most perilous problems of our times in recent years. Due to scientific achievements we have gained control of our environment but have made

no progress in the control of ourselves. In a complicated and mechanized civilization we remain emotionally immature. This is the cause of the present world crisis. Unless we can remedy this situation we shall destroy ourselves. This has been done before and it can happen again. in the series of races which carry on the evolutionary process of man. In recent years some knowledge of human nature has been gained in the insane asylums and on the battlefields of the first World's War. Since that time this new science has been growing. By studying the mentally unbalanced a good deal of knowledge has been gained about the normal mind. This is why psychiatry offers such a means of improving human nature to the point where man has a right to survive. Upon this basis it is imperative that everyone learn how to control himself. It is with this challenge in mind that the author attempted this book, a task which appears impossible, but as the author says, that is exactly what the mind is—"The accomplishment of the impossible." It is another book that your reviewer is going to have around to loan to some of his problem patients.

Health in the World of Work by Jesse F. Williams and Delbert Oberteuffer (\$1.96, *McGraw-Hill Book Company, Inc., New York*) is a textbook on health in industry. It tries to help students solve some of the interesting problems of living which must be met in this machine age.

Our Hunches, the Effect of Emotions on Our Lives and Habits by George S. Foster, M.D. (\$1.25, *Fleming H. Revell Co., 158 Fifth Avenue, New York City*) is an inspiring story of our subconscious reactions and emotions to the happenings of everyday life. This is a very valuable book of the inspirational type.

When Doctors Are Rationed by Dwight Anderson and Margaret Baylous (\$2.00, *Coward-McCann, Inc., New York*) is a discussion by the clever Director of Public Relations for New York Medical Society on the work of procurement and assignment, and how it affects the lives of physicians' patients. It should be on the waiting room table of every doctor.

Medical Parasitology by James B. Culbertson (\$4.25, *Columbia University Press, New York City*) is an excellent monograph on the subject. Most of us are inclined to think of parasitic diseases as having something to do with the tropics, but as a matter of fact while they are more frequent in the tropics they are just as serious public health problems in the world over, and maybe you and I ought to get up on things a little bit more. If this be true, then here is the book we should spend some time with this winter.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

February, 1943

No. 2

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor*

ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

The Therapy of Pulmonary Irritant Gases

M. A. BLANKENHORN, M.D., Cincinnati, Ohio

IN chemical warfare as in any other, the element of surprise and mystery is paramount. Civilian defense officers do not know military secrets, therefore the latest methods of gas warfare may be a surprise to many who are to participate as civilians. Even though this discussion is devised solely for civilian defense it will be necessary to anticipate somewhat the nature of the so-called war gases. To date no strictly new and vital information has been given to the chemical warfare school established at the University of Cincinnati by the Office of Civilian Defense. The subject matter of our courses is based mainly on reports and books published before war began.¹ If new agents to produce pulmonary irritation are used against us we may be unprepared as to specific remedies, but whatever we know about the old will be useful, for pulmonary irritant war gases now are all somewhat alike in their end results.

The substances most likely to be used as sprayed from planes or dropped as gas bombs are certain acid gases not unlike those used in the last war dispensed in explosive shells. Whether by sprays or by shells these poisons have certain properties to make them effective. They must not be very volatile—that means they persist. They must be highly toxic in very small concentration. They must be relatively imperceptible—hence may be insidiously active. The substances that fill these requirements best are phosgene, mustard gas and lewisite. These separately or combined are, if any, to be expected.

To treat pulmonary irritation produced by

The Author

● Dr. Blankenhorn, Cincinnati, Ohio, is a graduate of Western Reserve University, 1914; Captain in Medical Corps in World War I with British Expeditionary Force in France and Belgium, 1917-1918, where his experience with gas casualties furnish some of the material for this paper; director, medical service, Cincinnati General Hospital; Professor of medicine, University of Cincinnati College of Medicine.

these poisons it is not essential to know precisely what has been inhaled for there is no specific antidote and the disease resulting from one is much the same for all. Since there are no specific antidotes and no medical management that is specific and urgent, decontamination of the skin and clothing may be more urgent than medical treatment. It should be remembered that pulmonary irritation depends upon dosage, i.e., large doses cause immediate and lethal effects; smaller doses, i.e., less concentrated, cause later but deeper irritation which may or may not be lethal. Large or small doses of these acid gases cause corrosive effects when they come in contact with moist respiratory membranes, which corrosion may be mild, leading only to edema, or severe, ending with necrosis. If these acid effects are not directly and promptly lethal infection develops in the corroded tissue as in any thermal or chemical burn.

This in essence is the problem for the doctor to face if he thinks of civilian defense.

From the University of Cincinnati, College of Medicine. Part of a symposium given at the Kettering Laboratory in Cincinnati at the request of the Office of Civilian Defense, February, April and July, 1942.

PATHOLOGY

Winternitz² describes the pathology of war gases designated as pulmonary irritants as "Irritation of and damage to the deeper respiratory passage, especially the alveoli of the lungs with resulting inflammatory exudation of fluid, acute pulmonary edema and frequently death from asphyxia". Gross morbid anatomy is that of massive soggy lungs showing great congestion and circulatory failure. Later cases show bronchopneumonia, lung abscess and empyema.

Histological study shows hemorrhage, capillary dilation, thrombosis and small areas of atelectasis and emphysema, together with many remote lesions in other organs, probably the result of anoxemia and hemoconcentration. Experiments at the Kettering Laboratory demonstrate lesions of brain, heart and kidney probably due to the absorption and distribution of poison to these organs.

The urgent symptom of the group is pulmonary edema and the severe consequences are massive edema and suffocation. The pathology of mustard gas is mainly local but is much more corrosive to upper air passages than is phosgene, so that the later effects of infection as bronchitis and bronchopneumonia after mustard gas may be more serious than the edema producing effects.

DIAGNOSIS

Anyone skilled in the diagnosis of heart and lung disease will have no difficulty recognizing pulmonary irritation once the symptoms develop if he suspects that gassing has occurred. The physician may have trouble estimating the severity and will no doubt err on the safe side. Before symptoms develop it is impossible to recognize the disease—but a skilled "gas officer" even if he is not a physician can survey the circumstances of exposure and predict that the apparently well and non-complaining will soon be sick—perhaps very dangerously sick.

If the gas inhaled is one that causes irritation of upper respiratory membranes symptoms appear at once. If the gas causes irritation mainly in the lungs symptoms may be latent even as long as twelve hours. An observation period of 24 hours is generally thought to be safe. Mild dyspnea and cough are the earliest symptoms of irritation deep in the lung and moist or asthmatic rales, the earliest sign. In civilian defense arrangements it is well for the physician to rely on the gas officer for the business of finding and collecting cases.* The physician is of most value in the hospital where equipment and service have

been provided in advance. The gas officer can be very useful in diverting frightened people from hospitals and aid stations.

FIRST AID

Since there are no specifics or antidotes for the pulmonary irritation of war gases, aid stations should be concerned mainly with diagnosis and collection of casualties, and with decontamination of the skin and clothing, which is usually more urgent than medical treatment of pulmonary irritation.

Many antidotes, among them inhalations of ammonia, have been tried but none are recommended. Ammonia was found in the last war to be harmful. However, all who treated gassed soldiers were impressed by the harm done by even very moderate exercise. Therefore complete rest lying down was rigidly enforced. The matter of rest in the lying down position is apparent if it is recalled that the oxygen requirement for a man lying is about 0.5 cubic feet per minute, whereas at a brisk walk the requirement is about 5 cubic feet per minute. Therefore adequate transportation should be provided. It is not important that such transportation be rapid but it must provide complete rest lying down.

MEDICAL TREATMENT

The medical treatment is such as is suited to severe pulmonary edema where the underlying cause is beyond control even though well known. To guide this rather hopeless effort at treatment certain physiological considerations are helpful. From experience in World War I and from animal experiments, we know that at least five very dangerous conditions develop, namely:

(1) Anoxemia due to moisture in the alveoli and bronchi recognized as cyanosis, dyspnea, rales and foaming sputum.

(2) Bronchiolar obstruction, possibly bronchiolar spasm, recognized by asthmatic rales and acute emphysema.

(3) Hemoconcentration due to loss of blood plasma from the effective blood volume, recognized as livid cyanosis and black thick blood on bleeding and by high red blood counts.

(4) Obstruction to blood flow through the lungs as recognized by engorged neck veins, high venous pressure on bleeding and the precordial signs of right heart failure.

(5) Shock, in part due to hemoconcentration and anoxia, and perhaps due to other effects of gas on the central nervous system, recognized by low blood pressure and failing pulse and by ashen cyanosis at times.

TREATMENT OF ANOXEMIA

Continuous inhalation of oxygen is recommended, as in any pulmonary disease with cyanosis. Oxygen treatment must be continued as

*The Office of Civilian Defense should decide who is to instruct the non-medical gas officer. If this task falls to the physician he may be helped by reference to the "Medical Manual of Chemical Warfare", Chemical Publishing Company, Inc., Brooklyn, N. Y. Revised edition, 1942. Reprinted by permission of the controller of His Britannic Majesty's Stationery Office.

long as cyanosis persists and this may be several days. Anyone skilled in oxygen therapy can do this treatment with his ordinary equipment if he provides for numbers. After limited experience with special equipment, I believe that oxygen under pressure of a few (10 or less) cm. of water pressure may be more effective than oxygen at atmosphere. The technique of this is explained by its innovator, Dr. Barach³, but this writer found that anesthesia equipment with a rubber balloon was more effective than a mask alone in controlling positive pressure and probably gave more thorough saturation of the foamy contents of the trachea and bronchi. With this equipment the writer was able to restore consciousness and a pink skin color, whereas the same patient could not be changed by oxygen given at no pressure, i.e., atmosphere. It is obvious that this method could not be provided for many casualties. The best mass methods were developed for nose catheter administration.

As to helium, unless bronchiolar spasm is more apparent than moisture in the bronchi, I see no advantage in the use of helium mixture. This decision about bronchiolar spasm might be mostly a guess, for there is no way to estimate spasm except by the distension of the lung; and no way to estimate moisture except by the way it foams out in the sputum. Helium will pass through small bronchi easier than nitrogen will, but helium will not increase the solubility of oxygen in edema fluid of the alveolus and bronchi. Therefore, oxygen-helium mixtures are not recommended.

TREATMENT OF BRONCHIOLAR OBSTRUCTION

This is the treatment of asthma. Acute emphysema does occur as a part of the disease and is indeed asthma. Adrenalin was not helpful and was condemned after trial. For the relief of such asthma, the writer now would use aminophylline as is commonly used in paroxysmal cardiac dyspnea and in bronchial asthma. This drug, aminophylline, N.N.R. ampule solution 5-10 cc. intravenously with 20 cc. of 4% glucose, has been found an excellent remedy for bronchial asthma in acute attacks where adrenalin should not be used. There are few dangers from this drug, but nausea may result after its use. The glucose is helpful in sparing the veins.

TREATMENT OF HEMOCONCENTRATION

Hemoconcentration may be extreme in some cases, but is not easily treated. Saline infusions with and without glucose were not helpful but did increase the pulmonary edema. Gum acacia infusions were not better. Transfusions with whole blood were also of little value. Now the writer would try plasma as used in shock. Its value has not been tested, but it is reasonably

safe, unless it, too, will be found to increase pulmonary edema.

TREATMENT OF HEART FAILURE

Obstruction to blood flow through the lungs, i.e., right heart failure, is treated by bleeding. The indication to bleed is high venous pressure, and venesection to the amount of 500 cc. will generally relieve severe engorgement and the orthopnea which often accompanies right heart failure. It was the writer's experience that the patients who bled freely were improved; those who bled poorly, i.e., had low venous pressures, were not helped. I see no reason to suck out blood to relieve pressure that does not exist. Digitalis in any form did not seem helpful. Venesection may be repeated if the venous pressure recurs. The life saving value of venesection has not been demonstrated but it is advocated by many.

TREATMENT OF SHOCK

In all the literature from World War I on the treatment of the gassed, the victims are said to be easily put into two groups as to cyanosis. First, those who were gray cyanotic with poor pulse; second, those with blue cyanotic and of full pulse.

This easy division was occasionally easy, for the former was in severe shock (gray pulseless) and the latter suffered from right heart failure and high venous pressure (blue, with good pulse). Often the colors were mixed, the clinical picture also; but severe shock was an indication to do something. No form of treatment was then of much value. Saline infusions were used and whole citrated blood but neither seemed to do any good. Plasma was not tried.

At the present moment the physician must either be prepared to try things when the occasion demands or wait until a precise method is devised in experimental laboratories.

In a man who is severely gassed, anoxia of the nervous system and heart, great dehydration and loss of effective blood volume, together with probable direct toxic effects of an inhaled gas, as lewisite or phosgene, must all be considered effective in causing shock.

In the absence of specific instructions, the physician may be obliged again to try things. In the hands of skilled observers who may face the problem—certainly paredrinol, adrenal cortex extract, and desoxycorticosterone acetate, together with whole or concentrated plasma, deserve a trial if the trial can be made in hospital.

Of general measures employed for shock and pulmonary congestion, a few should be mentioned. Morphine was approved by some and condemned by others. The writer, who uses it in pneumonia, used it in war gassing with the same indications, namely, to reduce anxiety and pain

when the patient was active physically. The drug was to impose rest. The counter indications were severe cyanosis and slowed respirations.

Ipecac—This was used with good success by some, but I saw no good of it and see no pharmacological indication for its use.

GENERAL MEASURES

Ergotamine—Ergotamine has been proposed for phosgene because it combats capillary dilatation, such as is seen in autopsy specimens after phosgene poisoning. The drug was shown⁴ to increase the survival of rats after experimental gassing; but the dose used, 2 to 5 mg. per kg., is about 700 times the dose of ergotamine recommended for man. Ergotamine (Gynergin) has been safely used with due caution in man and could be tried for pulmonary edema in similar dose. I do not recommend it.

The late effects of pulmonary irritants are complicated by infection, i.e., tracheitis, bronchitis and pneumonia. The treatment of such infections was not especially satisfactory, but now with new drugs for pneumonia, better results may follow if the pneumococcus or the streptococcus is the infecting organism.

Any physician familiar with modern methods will meet no strange circumstances in pneumonia that follows gassing, except perhaps in pneumonia after mustard gas corrosion of the trachea and bronchi. In this circumstance severe pain and cough require attention, and postural drainage must be practiced periodically to clear the large air passages and thus aid in preventing pneumonia. Also to be remembered is that loculated pleural effusions occur with great frequency and may be infected very early in the course of pneumonia. These early, multiple, small and scattered loculated empyemas must be discovered and treated by aspiration and perhaps by drainage. The management of such pneumonia taxes all the skill of the internist.

PROGNOSIS

The prognosis at onset of symptoms is difficult because there is no way of estimating the severity of the lesion except as cyanosis and hemoconcentration may be estimated. The gray cyanotic group was generally the worst and some died without producing much foaming sputum.

If the symptoms became better within 72 hours, the danger was generally passed.

In some cases attacks of dyspnea, quite like paroxysmal cardiac dyspnea seen in hypertensive failure, did recur on the second or third day after recovery, or even later if the soldier sat up or stirred about. This recurrence suggests that the heart was at fault rather than the lungs, for indeed the heart did suffer prolonged severe anoxia and perhaps strain of the right ventricle. The convalescence of the disease, therefore,

should be the convalescence of the myocardium. Electrocardiograms would be needed for a proper understanding and management of the convalescence.

SUMMARY

Pulmonary irritation due to war gases may cause pulmonary edema at once which is rapidly fatal, or may cause delayed effects of equal severity—depending on the nature of the gas and the dosage. There are no specifics or antidotes for pulmonary irritation so produced. Since death results from suffocating pulmonary edema, continuous oxygen inhalation is suggested as the most important treatment.

Absolute bed rest of even the mildest cases should be provided immediately after exposure.

For civilian defense a non-medical gas officer should be trained for the task of case finding and case collecting.

In addition to anoxia, gassed patients may show acute emphysema—perhaps bronchiolar spasm, hemoconcentration, heart failure and shock. For these conditions no satisfactory treatment is recommended but some are proposed for trial.

The prognosis can generally be decided after 72 hours unless bronchopneumonia develops as a complication. The convalescence of uncomplicated cases is determined by the probable damage to the myocardium.

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Skull Fractures

Certain operative rules should be stressed, as follows:

1. Seldom is operation indicated in the first twenty-four hours, except in the case of (a) a badly compounded skull fracture, or (b) a rare early progressive extradural hemorrhage. Both of these can be delayed until cerebral shock is overcome.

2. Many depressed skull fractures heal without operation, but all should be elevated after patient's condition warrants, except slightly depressed fractures, outside the rolandic area, without signs or symptoms.

3. Subtemporal decompression or bilateral exploration may become necessary when the patient fails to yield to all conservative treatment. Do not persist in conservative measures when the signs and symptoms definitely indicate the need for exploration—Harry E. Mock, M.D., Chicago; Jour. Indiana S. M. A., Vol. 36, No. 1, January, 1943.

Cryptogenetic Pneumococcemia

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THE importance of blood cultures as routine laboratory methods has been fully demonstrated, especially in febrile diseases. It is now generally agreed that bacteriemia in pneumonia is a sign of serious import and demands urgent specific treatment. The finding of pneumococcemia in the absence of pneumonia or recent history of pneumonia poses an entirely different question. Cryptogenetic pneumococcemia¹ must be very rare but should not evade understanding. The following case study exemplifies this condition very nicely and assists in a rational approach to the problem.

CASE HISTORY

The patient, a 42 year old colored woman, was admitted to the hospital June 17, 1941, complaining of chills, fever and weakness of four weeks' duration. Her past history disclosed no contributory data. She had been in reasonably good health until one month before entry when she had her first chill, followed by fever and a feeling of profound weakness. During the next four weeks she had approximately ten chills at irregular intervals. Diurnal fever and afternoon sweating became more pronounced. Anorexia developed and she lost ten pounds or more of weight. There was an episode of two to three loose watery stools daily during the preceding two weeks, but this had completely subsided before her admission to the hospital. Two days before entry, she noted a severe pain in the right hip and right sacroiliac region, especially on motion of the thigh. This was the precipitating factor which induced her to come to the hospital.

Physical Examination: Temperature, 104°; pulse, 120; respiration, 32; blood pressure 110/60.

The patient was a fairly well developed but poorly nourished Negro woman appearing chronically ill, but in no acute distress. Although the examination was of little diagnostic aid, findings of import were as follows: The retinal arterioles showed minimal narrowing. Oral hygiene was poor; all of the upper teeth had been removed and were replaced by artificial dentures; the lower teeth were carious and showed considerable pyorrhea formation. The lungs were clear throughout. The heart was not enlarged; a very soft systolic murmur was auscultable over the precordium.

The abdomen was normal except for a small umbilical hernia. There was definite pain, without limitation of motion on passive movement of the right thigh; on deep pressure, there was localized pain over the right sacroiliac joint.

Accessory Examinations: RBC 3,250,000; Hemoglobin 13 gms.; WBC 9,550 (90% neutrophils);

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Blood Cultures, Pn. VII; Blood Kahn Negative. Urine, no sugar or albumin; occasional white blood cell. Stool, no blood or parasites.

Course: Sulfapyrazine² therapy was instituted as soon as the diagnosis of bacteriemia could be confirmed. After three days of this drug, cultures became sterile and the patient's fever subsided. This therapy was continued for three weeks and there was great clinical improvement. Ten days after the discontinuance of drug administration, she had another chill and the blood culture showed a growth of pneumococci. Chemotherapy was reinstituted and the blood cultures soon became sterile. For the next 33 days, she was given 4-6 grams of sulfapyrazine daily, depending on frequent blood level determinations. Again after 12 negative blood cultures, therapy was discontinued and five days later another chill signified reinvasion of the blood stream which was confirmed by blood cultures. At this time, the patient refused further treatment and signed her release from the hospital.

After one month at home during which her condition deteriorated considerably, she returned to the hospital. During this interval, she reported daily fever and sweats and progressive loss of appetite. A few days before readmission she expectorated large amounts of sanguinopurulent sputum and experienced considerable pain in the right axilla on coughing.

Following this admission, she remained in the hospital for eight weeks at which time she expired. Frequent blood cultures showed the presence of Type VII pneumococcus with little variation in the colony counts despite blood levels of sulfapyrazine which had been demonstrated to be effective previously. During this period, her temperature curve was of the septic type. There were few remarkable clinical punctuations in her course yet she lost strength steadily. One month before exitus, she complained of pain at the base of the nail of several fingers; no subungual hemorrhages were noted. The spleen was never felt. The cardiac murmur did not change appreciably; a gallop rhythm was noted several days after the last admission and persisted. She gradually became weaker and drowsy and died quietly 172 days after her first admission to the hospital.

Necropsy, performed four hours post mortem, showed a large cauliflower-like vegetation of the tricuspid valve. Other important findings were old and fresh infarcts of both lungs, especially

Submitted August 20, 1942.

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on the right, "nephrotic" changes in the kidneys and subacute diffuse hepatitis.

DISCUSSION

There is little doubt that the primary diagnosis depended almost exclusively on laboratory procedures. The history of repeated chills with fever suggests a blood stream infection or the introduction into the blood stream of septic products of infection. Bacteriemia due to the pneumococcus is a fairly frequent finding during the course of pneumococcal pneumonia. In this instance, that did not seem a likely explanation for the patient neither had signs of pneumonia nor gave a history suggestive of that disease. Not infrequently, pneumococcemia may be demonstrated as part of the picture of purulent complications of pneumococcal pneumonia such as empyema, otitis media, meningitis, endocarditis, pericarditis, or arthritis. Such foci were fairly quickly eliminated as the sites at which the pneumococcus gained entrance to the circulation, by careful clinical and roentgenological examination; the endocardium and certain joints constituted exceptions.

The fact that the patient complained of pain in the right hip and thigh just before admission made pyarthrosis a distinct possibility as the site for the "seeding" of the blood stream. Lejeune has reported that pneumococcal arthritis may appear with considerable frequency in Negroes of low resistance.³ But pneumococcal arthritis usually follows pneumonia. Moreover, the signs of inflammation were not present. Pain subsided within a few days and the diagnosis of septic arthritis could not be confirmed.

Pneumococcal endocarditis is never so easily eliminated as a cause of pneumococcemia. In almost half of the cases seen by the author the clinical diagnosis could not be made.⁴ The patient presented no signs, on admission, which could be unreservedly attributable to endocarditis.

Primary pneumococcemia must be very rare except possibly as a fortuitous contamination of the blood stream following trauma or operation. And it is exceedingly doubtful if persistent or recurrent bacteriemia, caused by the pneumococcus, ever occurs in the absence of a focus of pneumococcus infection elsewhere in the body. Cultures of the throat, sputum, teeth, teeth sockets and vagina failed to disclose the presence of pneumococcus except on one occasion when a Type VII pneumococcus was isolated from the throat by mouse inoculation.

Considering the patient from the standpoint of etiology, the diagnosis is equally evasive. Type VII pneumococcus is one of the commoner causes of pneumococcal pneumonia yet the incidence of Type VII pneumococcemia is relatively low.⁵ It is interesting to reflect here that had the organism cultured from the blood been *Str. viridans*, the diagnosis of endocarditis would have been

unchallenged; the bile solubility of the organism has thus raised a barrier to the establishment of the correct diagnosis.

Immunological studies were of great assistance in this case. Early in her hospital course, the patient showed a positive Francis test⁶ with Type VII polysaccharide although the reaction to Type I polysaccharide was negative. Her own serum caused capsular swelling of Type VII pneumococci. Similarly, agglutinins were demonstrable in a titre of 1:32. Thus the immunologic paradox of circulating antigen and antibody was presented. Wadsworth⁷ first called attention to this possibility when he demonstrated acute pneumococcal vegetative endocarditis in horses which were producing potent anti-serum for the homologous organism. Subsequently, the frequency with which the analogous situation occurs in humans was shown by other investigators.

Thus it is apparent that endocarditis is a diagnosis which may be reached not only by a process of exclusion but also one supported by bacteriologic and immunologic evidence. The paucity of embolic phenomena may be explained by postulating a lesion on the right side of the heart. The subsequent signs and symptoms of pulmonary embolism tended to support that thesis. Similarly, the long duration of the bacteriemia and the absence of meningeal signs and symptoms⁴ were more suggestive of a right-sided lesion.

SUMMARY AND CONCLUSION

A patient with pneumococcal bacteriemia of cryptic pathogenesis is presented. The diagnosis of bacterial endocarditis should be entertained in such cases and vigorous chemotherapy instituted. The finding of pneumococci in the blood stream in the absence of pneumonia should indicate no less prompt and energetic treatment than in pneumonia. In this instance, sulfonamide therapy seemed effective at first but was discontinued too soon because the patient presented no signs of endocarditis. Past experience has shown that, next to prevention, the greatest hope of curing endocarditis depends on the institution of effective treatment when the disease is essentially a bacteriemia.

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Blood Urea Nitrogen Elevation Associated with Sulfonamide Therapy

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WITH the clinical use of sulfanilamide and its derivatives it has been generally recognized that untoward reactions may follow their use and reports on their toxic manifestations have been numerous. It is well known that certain of the derivatives of sulfanilamide produce their serious reactions most frequently in the urinary tract. A recent investigation at the Cincinnati General Hospital disclosed that 70 per cent of the very severe sulfonamide reactions involved the urinary tract. Southworth and Cooke were the first to report hematuria, renal colic, anuria, and nitrogen retention following the use of sulfapyridine. Since then, numerous reports have dealt with these reactions in sulfathiazole and to a lesser extent in sulfadiazine therapy. Sulfanilamide, unlike its derivatives mentioned above, is very soluble and has not, to our knowledge, been known to produce serious kidney reactions secondary to crystal precipitation.

Renal complications of sulfonamide therapy may result in urolithiasis with or without renal colic, gross or microscopic hematuria, hydronephrosis, oliguria, and anuria. Some reactions are transient and mild; others are prolonged and severe. Nitrogen retention is associated almost invariably with the more severe reactions.

In an attempt to study the serious renal complications of sulfonamide therapy, we have selected only those cases with a blood urea nitrogen level over 40 mgm. per cent, in whom the nitrogen retention was felt to result wholly or partly from sulfonamide toxicity. It is apparent that in certain cases one may question whether the drug or the initial disease was the predominating toxic renal factor. The criteria which were used in selecting each case were the presence of a high blood urea nitrogen during sulfonamide therapy which dropped promptly in response to stopping the drug, forcing fluids, and, in certain cases, to additional urological therapy (i.e. ureteral catheterization, pelvic lavage, etc.) In four of the six cases which died, adequate autopsy confirmation was obtained.

In addition to sulfathiazole and sulfapyridine, renal reactions to sulfaguanidine and sulfapyrazine are reported in our series. The latter drug

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was recently the subject of a preliminary report by Ruegsegger et al and Schmidt et al. This is the first time to our knowledge that renal reactions to these drugs have been reported.*

ANALYSIS OF CASES

We have classified the reactions, for ease of handling, into the following three groups:

(a) Azotemia group, which includes those patients whose blood urea nitrogen was elevated but who did not have the symptoms and signs seen in the uremic syndrome.

(b) Uremic group with recovery, which includes those patients whose blood urea nitrogen was elevated and who, in addition, exhibited the symptoms and signs seen in the uremic syndrome.

(c) Uremic group in which a fatal outcome occurred.

Accompanying graphs (figs. 1, 2, 3, 4, 5, 6 and 7) illustrate the blood sulfonamide and urea nitrogen levels and the daily drug dosages occurring in the cases comprising the groups mentioned above. A study of the incidence of reactions for the various drugs used is represented on the chart in figure 8. This chart includes only those cases treated in the medical department of our institution (prior to July 1, 1942) whereas surgical cases are included among the 20 cases of our series.

The high incidence of reactions to sulfapyrazine may be explained in several ways. All of the reactions occurred in the first 57 cases treated. They received an initial dose of 4 grams and then a daily dose of 6 grams. In the past 47 cases treated, satisfactory blood levels have been obtained by the use of 4 grams daily, and no serious

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*Renal toxicity occurring during sulfaguanidine therapy has been reported in one case by S. L. Cole (J.A.M.A. 120: 196, September 19, 1942) before this article was submitted for publication.

SULFONAMIDE AZOTEMIA

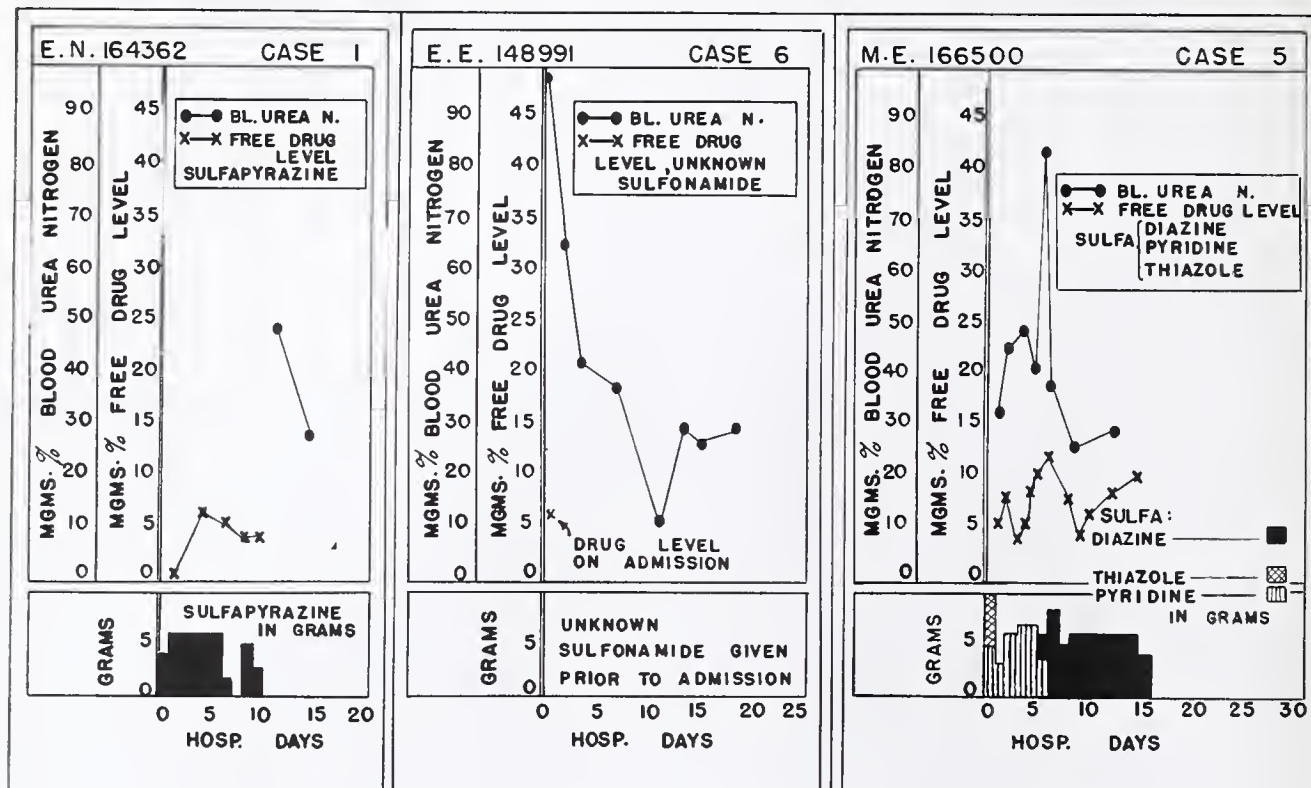


Fig. 1

SULFONAMIDE AZOTEMIA

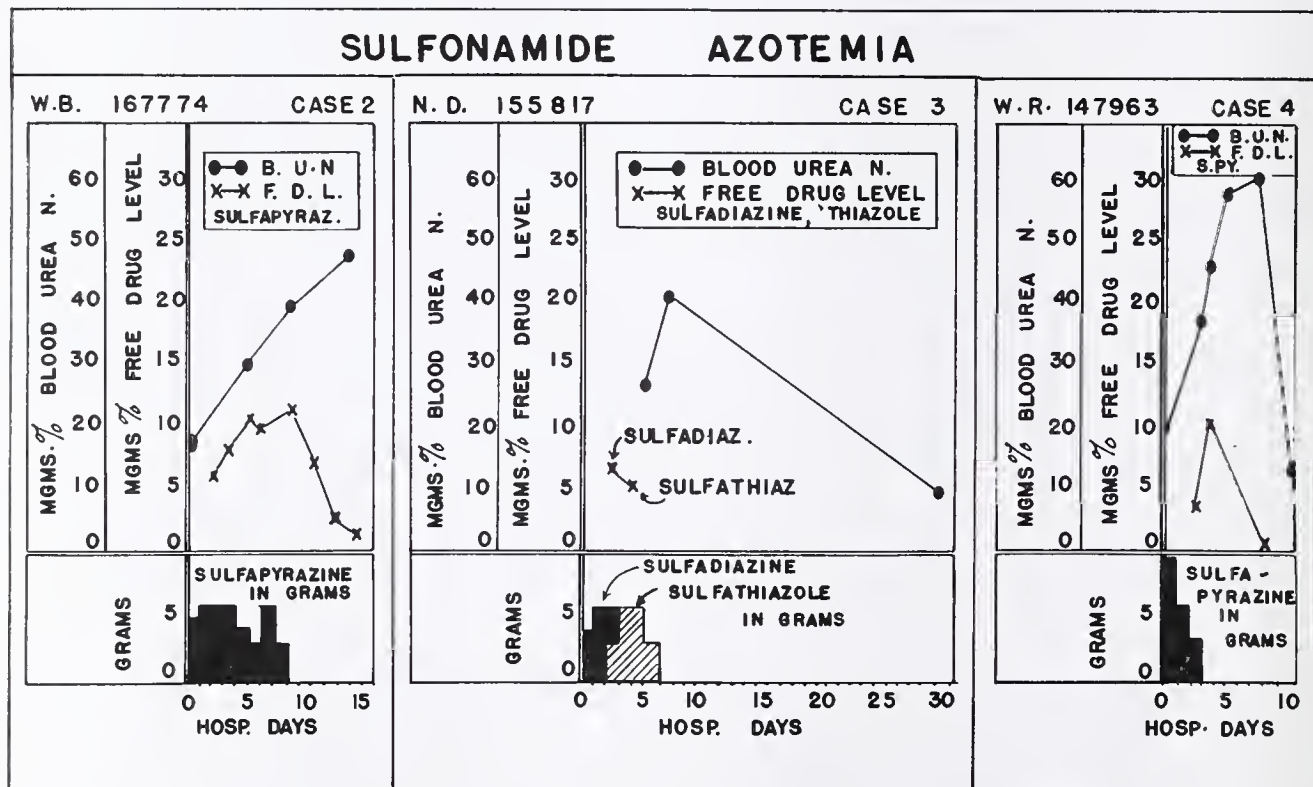


Fig. 2

reactions referable to the urinary tract have been noticed. In addition, it is possible that patients receiving this drug were more closely watched inasmuch as it was a new drug under clinical investigation.

Not enough patients had been treated with sulfaguanidine and sulfadiazine at this institu-

tion (prior to July 1, 1942) to estimate accurately the incidence of serious reactions in the urinary tract, but the evidence is suggestive that sulfadiazine may be less frequently toxic in this respect than the other drugs.

Our clinical series is too small to evaluate whatever role might be played by the factors sex,

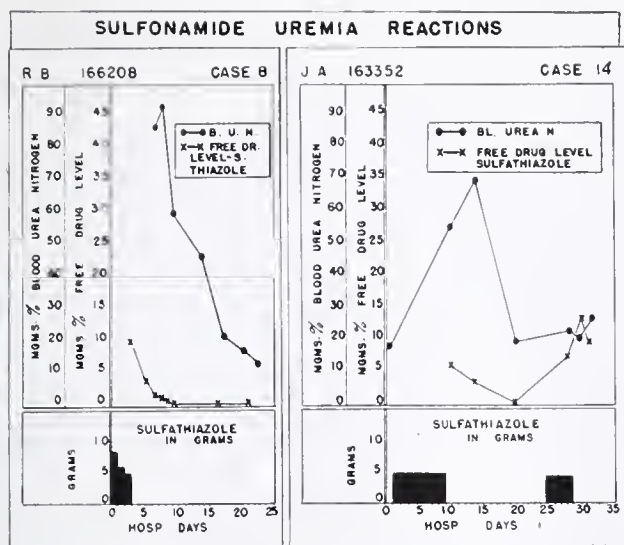


Fig. 3

color and age. Although drug reactions may occur at any age, there is some evidence to suggest that they may occur slightly more frequently in the older age groups. This may be associated with the greater possibility of diminution of functional kidney reserve with advancing age.

The 20 cases in this series were classified as to diagnosis in the following manner:

Pneumococcic pneumonia	8 cases
Untyped pneumonia	3 cases
Pneumococcic meningitis	1 case
Acute gastro-enteritis	1 case
Acute rheumatic fever	1 case

Staphylococcus aureus septicemia	1 case
Pyelonephritis	2 cases
Streptococcus pneumonia	1 case
Hand infection and diabetes mellitus	1 case
Compound skull fracture	1 case

The average total drug given per case was 45 grams, varying from 15 grams to 110 grams. The average dose for each of our groups was 48.6 grams for the azotemic group, 46.3 grams for the uremic group, and 47.2 grams for the fatal group. From animal experimentation, one would expect large doses to be more apt to produce urinary tract damage. However, dosage is of little value in predicting whether untoward reactions may occur in individual cases. This is evidenced by case #20 (15 grams) and severe reactions reported by Winsor and Burch after 8 grams of the drug.

Urinalyses revealed seven cases of crystalluria, three cases of gross hematuria and six cases of microscopic hematuria. The urinary pH in 17 of the 20 cases was 5.5 or less (by nitrazine paper method); but the urinary pH is often low in many patients receiving sulfonamides without evidence of kidney reaction. Furthermore, anuria has been reported in a patient whose urine was alkaline (Wilson and Billingsley). The advisability of giving sodium bicarbonate has not been determined conclusively as yet.

Adequate tests of kidney function were performed in but seven cases of this series, hence no definite conclusions can be drawn from this

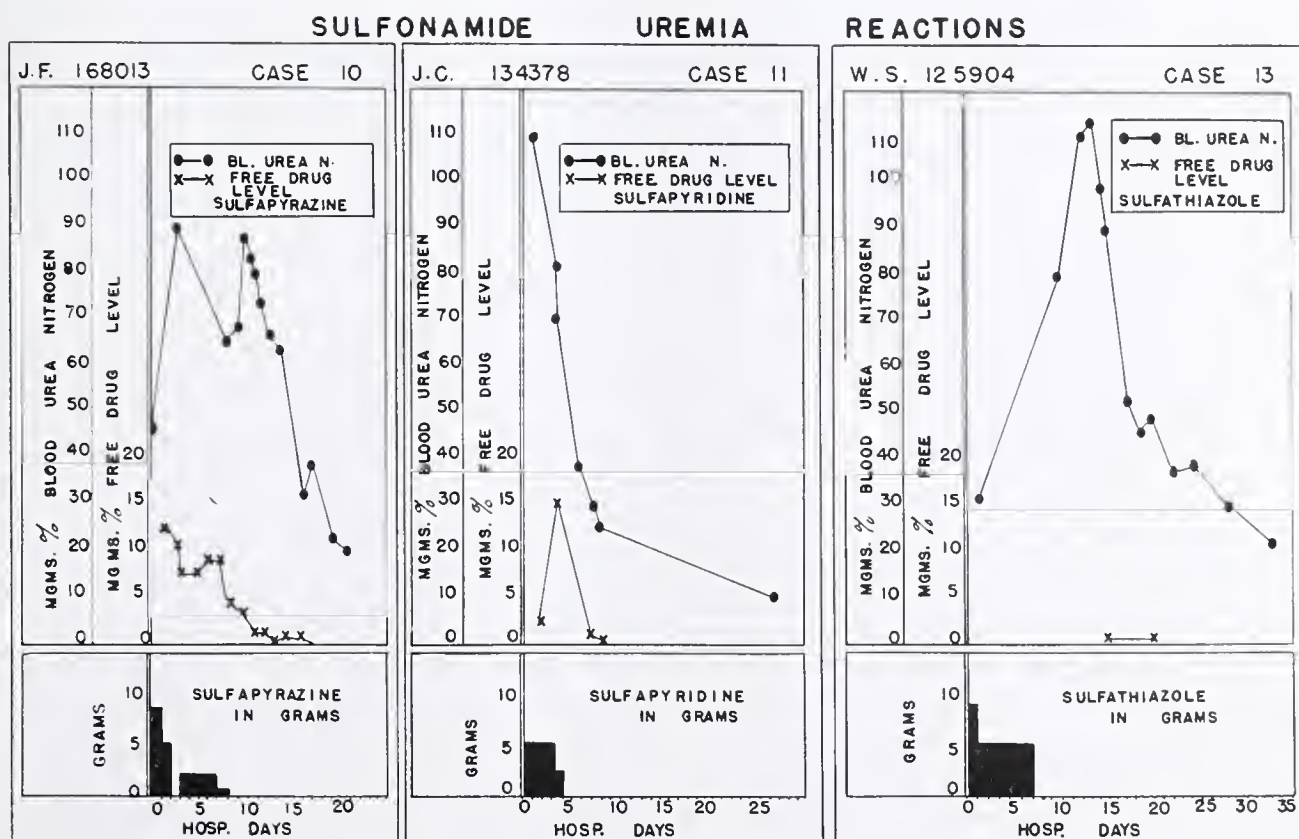


Fig. 4

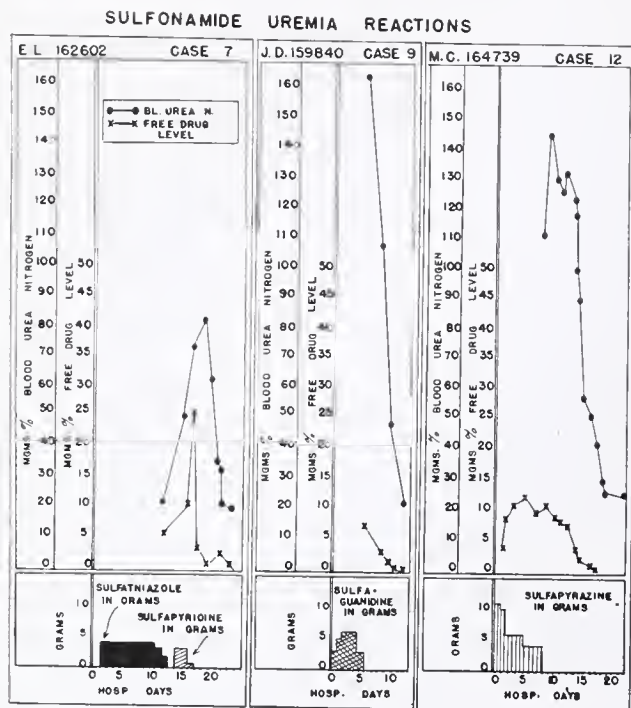


Fig. 5

small group. However, it is reasonable to be cautious in administering sulfonamides to patients with diminished kidney reserve.

The average of the highest blood urea nitrogen for the azotemic group was 64 mgm. per cent; for the uremic group, 132 mgm. per cent; and for the fatal group, 165 mgm. per cent. The blood urea nitrogen returned to normal in all cases that recovered.

It is difficult to analyze the part played by obstructive factors in the urinary tract since only three patients had complete urologic examinations. However, case #7 was found to have a right ureteral stricture; case #16 had urethral strictures which led to crystal precipitation in the urethra so that the urological consultant had considerable difficulty passing a catheter; case #12 had marked difficulty voiding and required catheterization; and case #17 had benign prostatic hypertrophy with obstruction.

Associated reactions occurring in the 20 cases of this series were of the following types: Drug fever was present in three cases (1, 7 and 9). Sinus bradycardia was associated with the fever in case #1. Alternating bundle branch block followed the anuria in case #7 (fig. 9). Microscopic hematuria was present in six cases and gross hematuria in three. Flank pain resembling ureteral colic occurred in three cases, drug rash in two, and pulmonary edema in one. Acute hemolytic anemia with leukemoid reaction was present in case #11.

The fluid intake and output was charted in seven patients. In three of these, the intake was below 2500 cc. daily and in four cases the output was below 1000 cc. daily. In 50 per cent of the cases it is possible to say that fluid intake was inadequate.

However, adequate fluid intake and output do not prevent this type of sulfonamide reaction. This is illustrated by case #8. Fluid intake in this case was always above 3000 cc. daily and output was always above 1800 cc. daily. The importance of this factor cannot be determined from this series alone, but everyone is agreed that fluid output above 1200 cc. is a necessary prophylactic measure.

Necropsy findings in the four autopsied cases revealed evidence of renal damage consistent with the diagnosis of sulfonamide nephrosis and all but one case exhibited crystal deposition at various points in the urinary tract, ie. bladder, ureters, renal pelvis, and collecting tubules. Three of the cases exhibited lower urinary tract obstruction either in the prostate or urethra. Figure 10 illustrates crystal deposition in the collecting tubules (case #15).

COMMENT

These 20 cases re-emphasize the seriousness of the urinary tract complications during sulfonamide therapy. The division of these cases into three groups is arbitrary since the pathologic process is similar in all. The chief value of such a classification is in pointing out that up to a certain point the process is a reversible one and will respond to adequate therapy.

The diagnosis of this type of reaction is not difficult if the possibility of its occurrence be kept in mind and the patient be observed carefully. The presence of gross hematuria, ureteral colic, tenderness over the kidney area, oliguria,

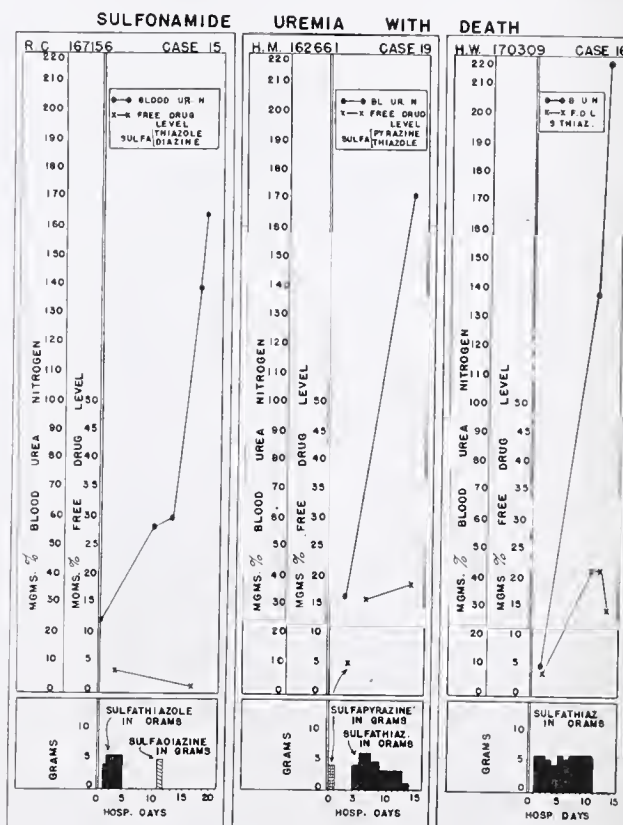


Fig. 6

SULFONAMIDE UREMIA WITH DEATH

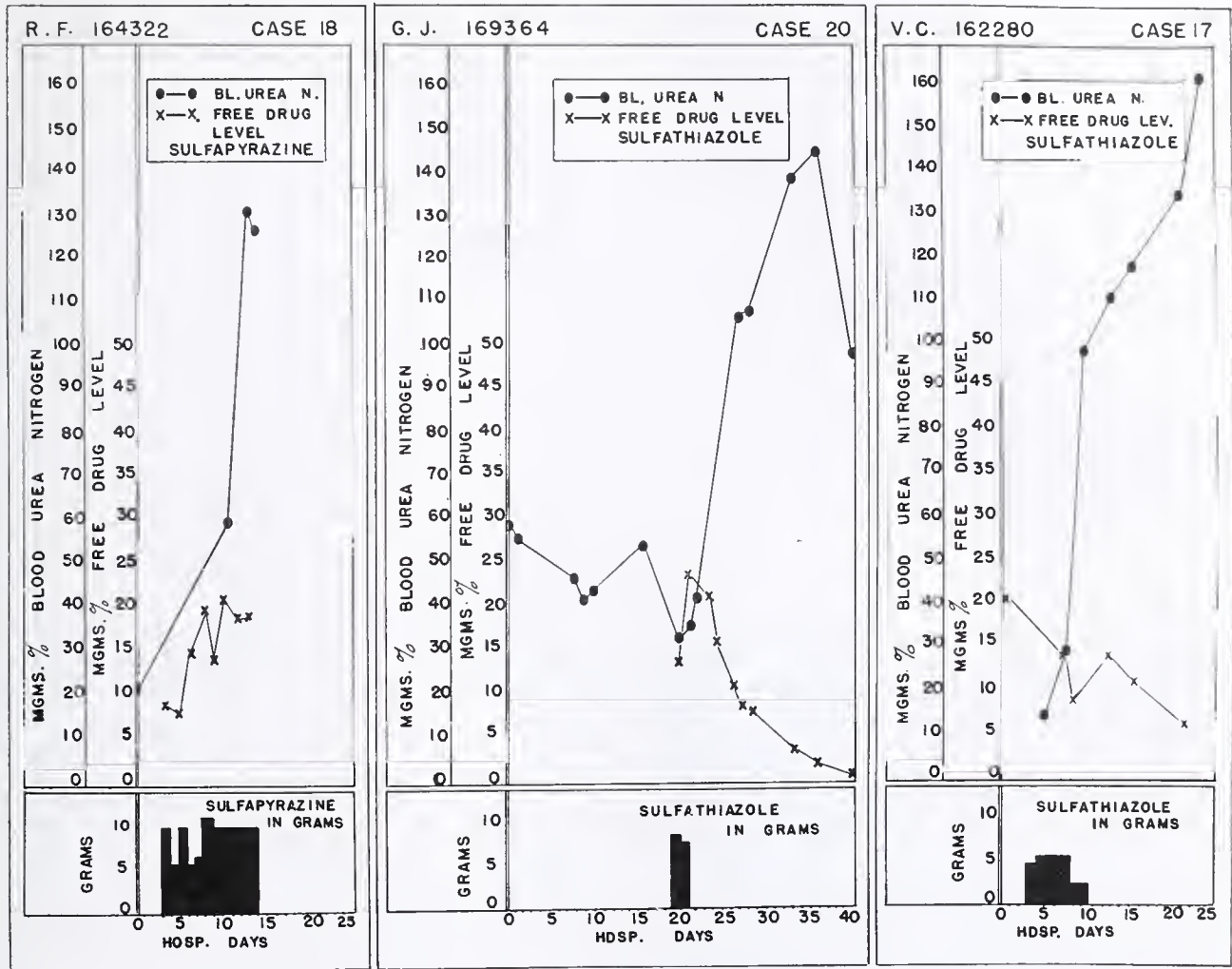


Fig. 7

INCIDENCE OF UREMIA AND AZOTEMIA IN SULFONAMIDE THERAPY

Drug	Patients Treated	Azotemia (with recovery)	Per Cent	Uremia (with recovery)	Per Cent	Fatality	Per Cent	Corrected* Per Fatalities	Per Cent	Total Reactions	Per Cent
Sulfaguanidine	18	0	0	1	5.55	0	0	0	0	1	5.55
Sulfapyridine	318	1	0.31	1	0.31	0	0	0	0	2	0.62
Sulfathiazole	587	1	0.14	2	0.34	4	0.68	3	0.51	7	1.19
Sulfapyrazine	106	3	2.8	2	1.8	1	0.9	0	0	6	5.6
Sulfadiazine	51	0	0	0	0	0	0	0	0	0	0
Total	1080	5	0.46	6	0.55	5	0.46	3	0.28	16	1.43

(*Including only those cases in whom the drug was thought to be wholly responsible for the death.)

Fig. 8

anuria, and increasing azotemia are all danger signals. Usually it will be necessary to discontinue the drug immediately. Frequent urinalyses together with the estimation of fluid intake and output should be done in all sulfonamide treated cases. Frequent blood sulfonamide and blood urea nitrogen determinations should be performed where facilities permit. If impaired kidney function be present the sulfonamides should be administered cautiously. Proper thera-

peutic measures should be instituted in the presence of obstruction to the urinary flow. Once the toxic reaction has occurred, the following measures should be instituted:

1. The drug should be discontinued immediately.
2. Most observers agree that fluids should be forced until a daily urinary output of 1200 cc. is maintained. The administration of fluids in cases of anuria, (i.e., without dehydration) is still a moot point.

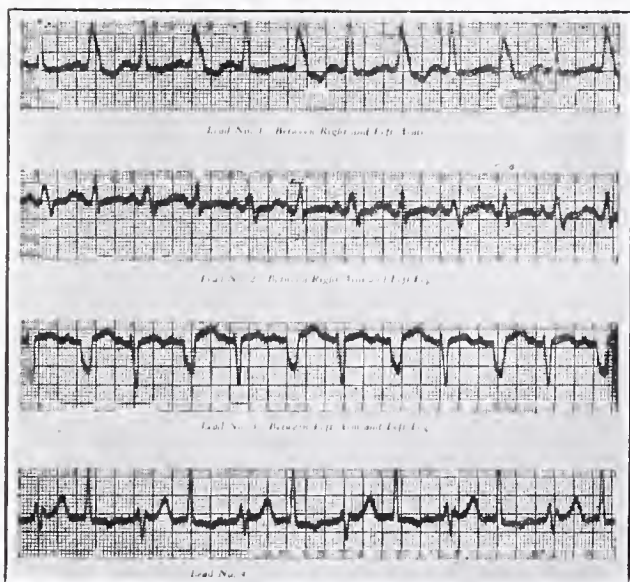


Fig. 9. Alternating Bundle Branch Block Occurring in a Case of Anuria Resulting from Sulfathiazole (Case No. 7).

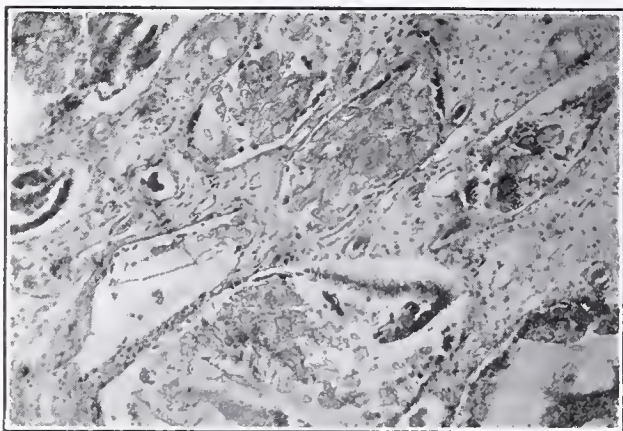


Fig. 10. Collecting Tubules Distended with Sulfathiazole Crystals. (Case No. 15).

3. Anuria for more than 24 hours after discontinuance of the drug is an indication for cystoscopy and ureteral catheterization with pelvic lavage if obstruction is present.

4. Alkalinization may be of some value and the general consensus of opinion is that enough alkali should be given to maintain the urine at a pH of 7.5.

CONCLUSIONS

1. Twenty cases of acute renal complications associated with sulfonamide therapy are reviewed. Seventeen of these cases occurred in a series of 1080 sulfonamide treated cases on the Medical Service of the Cincinnati General Hospital. Drugs included in the study are sulfapyridine, sulfathiazole, sulfadiazine, sulfaguanidine and sulfapyrazine.

2. The reaction is usually apparent from observation of the urine and the liquid intake and output. In some cases, however, blood sulfonamide and blood urea nitrogen levels are necessary for an early diagnosis.

3. Except in the rare instances, the reactions are reversible when treated early.

4. Treatment in the main is directed at stopping the noxious agent and aiding in its elimination. In addition, any mechanical blockage in the urinary tract should be relieved.

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Otitic Complications and the Sulfonamides

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SINCE the advent of the sulfonamide group of chemotherapeutic agents, they have naturally found a large place in the treatment of diseases of the middle ear. Most cases of acute purulent otitis media treated today, whether by the general practitioner, pediatricist or otologist, get one of the sulfonamides almost immediately. Cases of acute catarrhal otitis media where the infection is mild and there is no bulging of the tympanic membrane, are usually given a sulfonamide to prevent a suppurative process.

In the Ear, Nose and Throat Clinic of the Station Hospital, Fort Sill, Oklahoma, we treat a daily average of 20 cases of middle ear disease. They are either acute or chronic. These cases are treated under ideal conditions because they are all hospitalized, with, of course, a few exceptions to that rule.

It is our practice to give every case of acute catarrhal or acute suppurative otitis media a course of one of the sulfonamides immediately upon admission to our wards. They are watched closely, being examined twice daily. Blood counts are taken either daily or every other day, urinalyses are run daily or every other day and cultures are taken before sulfonamide therapy is instituted. This therapy is, of course, only in conjunction with daily cleansing of the ear by the dry method and general systemic treatment. Further if we are treating a case of suppurative otitis media over a period of weeks, we take mastoid x-rays every five days to more closely observe the destructive process, if any, in the mastoid. Under these ideal conditions, in the last twelve months we have had eight cases of acute mastoiditis which were operated on. One case of meningitis, due to middle ear disease, died before surgery could be performed. All of the eight cases which were operated on had complications or showed tremendous destruction and necrosis of the mastoid process.

Numerous authors, among them Fenton¹, Kopetzky², Maybaum, Snyder and Coleman³, Williams, et al⁴, and others, have pointed out that sulfonamides often mask otitic complications and one must constantly be on the watch for signs and symptoms of mastoiditis, brain abscess, sinus thrombosis, meningitis, et cetera, when one is treating an acute suppurative otitis media with sulfonamides.

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We believe that the following cases are illustrative of the fact that the use of sulfonamides in the treatment of otitis media may mask complications and that extreme care must be exercised in such cases.

CASE REPORTS

Case No. 1—Sergeant H. This patient was admitted to the hospital with a diagnosis of acute suppurative otitis media, right, and a mild bronchitis. The temperature on admission was 104.2 degrees Fahrenheit. He complained of malaise and headache. The right ear was discharging thick, purulent material and the tympanic membrane showed an incision in the posterior, inferior quadrant which had been made four days prior to entrance into the hospital.

There were a few coarse scales in both bases. The white count on admission was 17,000 with 85 per cent polymorphonuclear; the urine was negative; the X-ray of the chest suggested a beginning lobar pneumonia and X-ray of the mastoids showed an old sclerotic mastoid on the right.

The patient was given 4 grams of sulfathiazole the first day and by the following morning his temperature had dropped to 99.4 degrees. He continued to get sulfathiazole, 4 grams daily, and his temperature was normal from then on, never reaching more than 98.4 degrees Fahrenheit. The ear kept discharging pus and was cleaned out daily in the clinic. On the third day after admission, the ear had stopped draining; he felt fine, had no complaints and was eating and sleeping well. He had received a total of 180 grains of sulfathiazole and it was then discontinued. He continued well for eight days without a sign of any disease; the temperature stayed normal

Submitted June 5, 1942; Released for publication, Bureau of Public Relations, War Department, Washington, D.C.

Note: From the Ear, Nose and Throat Clinic, Station Hospital, Fort Sill, Oklahoma.

throughout; the ear showed no discharge; there was no pain present; the chest was clear and he was walking to and from the mess hall three times a day. On the tenth day in the hospital, he complained of sharp, severe headache, began to vomit and had pains in the abdomen. That afternoon at 5:00 P. M. he began to have chills and fever of 99.4 degrees. (The first temperature in ten days.) At 7:00 P.M. he was semi-conscious and a spinal tap at that time showed cloudy fluid, 1,600 white blood cells, 2 plus globulin and Type I pneumococci. At 10:00 P.M. the temperature was 102.4 degrees and at 1:00 A.M. he died.

This patient had no signs or symptoms for ten days and then in 17 hours became ill and died. The autopsy showed a localized pneumococcic meningitis (proved by post-mortem culture) in the region of the petrous pyramid. A culture from the petrous cells showed a Type I pneumococci. There was a terminal pneumonia present, as well. This case illustrates a definite masking of the symptoms due to the use of sulfonamides. There were none of the prodromal symptoms of meningitis; there was no evidence of petrositis; there was nothing to warrant anything being done to the patient except to allow him to convalesce. This patient undoubtedly had an active infection progressing even though physical signs and symptoms were absent. The virulence of the organisms had become attenuated but destruction of the bone continued.

Case No. 2—Private N.L. Patient was admitted to the hospital on December 9, 1941, with a diagnosis of acute purulent otitis media, right, present for one day. The temperature on admission was 90 degrees Fahrenheit. The right ear showed a moderate amount of mucopurulent discharge present with a small perforation at the inferior portion of the tympanic membrane. The blood count on admission was white blood cells, 7800, polymorphonuclears 85 per cent, urine was negative. The ear culture showed Type III pneumococcus and Friedlanders Bacillus. Two days after admission, a mastoid X-ray showed that the right mastoid was involved and the picture was that of an acute mastoiditis. On the same day a myringotomy was done and the ear drained freely after incision.

Sulfathiazole therapy was started on admission and patient was given 45 grains daily. For the next five days, patient was treated with sulfathiazole and daily cleansing of the ear. The temperature never exceeded 102 degrees Fahrenheit, except one day when it was 103 degrees. It had none of the characteristics of a steeplechase temperature and usually hovered around 100 degrees to 101 degrees (mouth temperature). The patient had no chills and no delirium. He showed the effects of a toxic infection and his appetite was poor. The ear continued to drain but never in copious quantities. The white count on December 11, 1941, was 9,500, with 60 per cent polymorphonuclears. On the 12th, the urinalysis showed 1 plus albumin. Thereafter, daily urinalysis and blood counts showed no albumin in the urine and the white blood count hovered around 9,000. X-ray on the 15th showed that the mastoid was a little more cloudy. This was six days after the onset of the disease. On the same day, it was noted that the right jugular vein had the "core-like feel" described by Eagleton⁵ and despite the fact that the ear was not discharging much and there was no mastoid pain and very

little tenderness and it was but six days after the onset of the disease, it was decided to operate.

The usual mastoid operation was done. The mastoid was necrotic and the cells although still retaining their configuration and continuity, were soft and infected. There was destruction posteriorly and the sinus plate was uncovered. The lateral sinus was found to be thrombosed. It was covered with granulations and was thrombosed from the jugular bulb to three centimeters posterior to the knee of the sinus. The sinus was opened and the clot removed. The patient eventually made a complete recovery.

This case illustrates again the need for being on the watch for complications of otitic disease while giving sulfonamides. The mastoid culture in this case was pneumococcus Type III.

Case No. 3—Private L. This patient was admitted to the Ear Service with a diagnosis of acute suppurative otitis media, right. He was treated with daily cleansing of the ear and was given 3 grams of sulfathiazole per day. He was treated for seven days, after which the sulfathiazole was discontinued because the ear had stopped draining and he was temperature free and had no symptoms. The x-ray of the mastoid on admission had shown some cloudiness of the right mastoid cells but no evidence of a definite mastoiditis. A week later the patient began to have drainage again from the right ear but it was not very profuse or purulent. A culture at this time showed a few Streptococci and many Staphylococci. Sulfathiazole therapy was again instituted and again after five days, he had a perfectly dry ear with no other symptoms. Another x-ray showed cloudiness of the mastoid cells with slight breaking down, but the cellular structure could still be clearly discerned. He was kept in the hospital and a week later the ear drained again, and again he was given sulfathiazole. The ear again ceased draining and he was discharged in a week with a dry ear and symptom free. He did not return to the clinic for two weeks but then returned and examination showed a large abscess in the neck below the tip of the mastoid. Mastoidectomy was performed and a very rotten, necrotic mastoid was found with extensive destruction around the lateral sinus and the whole tip of the mastoid. The dura was uncovered but was found to be healthy. The patient made an uneventful recovery. This case illustrates again the fact that bacteria will become quiescent and their virulence diminished by sulfonamide therapy, and when it is discontinued they will again exalt their virulence and cause extensive destruction and complications.

Case No. 4.—D.D. (aged 6). This patient was first seen on July 23, 1941, at which time he had acute suppurative otitis media, right, which had ruptured spontaneously the previous day. At the time of the first visit, he was having no pain, his temperature was only slightly elevated and there was a moderate amount of sero-purulent discharge from the right ear. Conservative treatment was instituted. The course of the disease was satisfactory. On July 31, 1941, the discharge had diminished and on August 4, 1941, the ear was almost dry. During this period the patient had no pain, tenderness or swelling over the mastoid. On August 9, 1941, the patient suddenly developed mastoid pain with profuse pulsating discharge. There was slight mastoid tenderness and swelling and elevation of temperature to 100 degrees. The blood count showed 15,000

white blood cells. Treatment with sulfathiazole was started. He received 2 grams (30 grains) the first day and then 1 gram (15 grains) a day for three days. On August 12, 1941, the discharge had completely stopped, the pain and swelling had subsided, the patient's temperature was normal, and the perforation in the ear drum appeared to be healing. On this date the sulfathiazole was stopped. On August 19, 1941, the patient had a slight cold but the ear drum appeared normal and no perforation could be seen. On August 23, 1941, the patient was again seen with acute pain in the mastoid with marked swelling and tenderness and protrusion of the auricle. The tenderness was most marked over the mastoid antrum. The ear drum was lusterless and full, but there was no discharge and no perforation was seen. The temperature was 99 degrees and the blood count showed 12,400 white blood cells. The urine was normal except for 1 plus sugar. X-ray of the mastoids revealed extensive cellular destruction and a well developed pneumatic mastoid on the right side. The destruction was most marked around the knee of the lateral sinus and in the root of the zygoma.

A diagnosis of acute suppurative mastoiditis was made and it was decided to use chemotherapy for a few days before operating. He was given 2 grams of sulfathiazole daily and in two days the pain and swelling had subsided and the temperature was normal. In view of the findings on admission to the hospital, a complete simple mastoidectomy was done under ether anesthesia on August 26, 1941. The cellular structure of the mastoid was very extensive with cells extending around the lateral sinus and into the zygoma. After removing the cortex, necrotic bone and granulation tissue was encountered throughout. Patient made an uneventful recovery.

Case No. 5—Private H. J. Acute purulent otitis media present in the right ear for 23 days prior to admission to the Station Hospital. Had been treated at a civilian hospital and was given 45 grains of sulfathiazole daily for the whole period. The discharge kept on and the patient looked toxic, so he was finally sent to Fort Sill for observation and treatment. The X-ray showed a definite mastoiditis on the right, and mastoidectomy was performed three days after admission. There was massive destruction of the mastoid process and the whole tip was removed. The culture from the mastoid was *Streptococcus hemolyticus*. This patient had been given the maximum dosage of sulfathiazole without any relief. Cultures were not taken at the first hospital and no X-ray studies were made. Two weeks after operation, he developed chills and fever, 103 degrees. The mastoid wound was reopened, the lateral sinus was found diseased and a mural thrombus was removed. This patient had a stormy convalescence but eventually made a good recovery.

Case No. 6—Private C. T. Patient had scarlet fever at another post and on the fifth day of the disease developed a left acute purulent otitis media. Sulfathiazole therapy was instituted and the patient was given 45 grains a day for five days. Fever, however, persisted and the ear drained profusely. Sulfathiazole was discontinued for three days and then given again for five days. There was, however, no benefit and X-ray study of the left mastoid showed an acute mastoiditis, so patient was sent to Fort Sill for observation and treatment. On admission to the

Station Hospital, Fort Sill, Oklahoma, this patient was found to have a profuse discharge from the ear, persistent fever, sagging of the posterior canal wall and the X-ray showed a coalescent mastoiditis. Operation was performed and a very necrotic mastoid was found. There was a diseased tract leading to the dura and the dura was uncovered for an area 4 millimeters in diameter; no subdural abscess was found. The patient made a complete recovery. The mastoid culture in this case was a hemolytic *Streptococcus*.

Case No. 7—Private T. B. Soldier had scarlet fever at another post and four days after onset of the disease he developed an acute suppurative otitis media, left. He was given 45 grains of sulfathiazole for a week. At the end of a week, the sulfathiazole was stopped and an x-ray of the mastoids was made. It showed no involvement of the mastoid process. He was not given any sulfathiazole for five days and then it was resumed again. It was given for three days but his temperature kept going up (103 degrees Fahrenheit, maximum), so he was transferred to Fort Sill for observation and treatment. X-ray study here revealed an acute mastoiditis. He was operated on the following day and we found a large extensive mastoid process with much destruction around the lateral sinus and a large perisinous abscess; the lateral sinus was covered with granulations but was not thrombosed. There was extensive involvement of the zygomatic cells which were thoroughly cleaned out. Mastoid culture showed a hemolytic *Streptococcus*. After operation, temperature remained elevated and the skin over the zygoma became very edematous in 48 hours after operation. At first we attributed this to the trauma of the operation but when the swelling went higher, we thought of a contiguous osteomyelitis; X-ray studies proved that this was so and showed an area of osteomyelitis extending up along the squamous portion of the temporal bone. Ten days after the first operation we opened the first mastoid incision and curetted the area of osteomyelitis. The bone was soft and there was a definite area of demarcation. The wound was filled with sulfanilamide powder and left wide open so that drainage would be adequate. Sulfanilamide powder was instilled daily. In two weeks there was no more drainage and the wound was very clean, so a secondary closure was done and the patient made an uneventful recovery.

CONCLUSION

1. The sulfonamides have good practical value in the treatment of otitis media but they are not necessarily specific. Cases of surgical mastoiditis will occur even though the sulfonamides are used early and well.

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Active Chemical Components of Crude Ragweed Extract

GEORGE E. ROCKWELL, M.A., M.D.

MOST investigators have concluded that crude pollen extract contains two or more active fractions. These fractions are nitrogen containing substances and have been described as both protein and non-protein in character. Some studies have also been made on the nature and antigenic properties of the carbohydrate which is present. This entire subject has recently been reviewed by Newell.¹

We have previously reported the separation of a polypeptide as the hydrochloride from crude ragweed extract² which we believed to be the main antigen because the therapeutic use of it had given unusually good clinical results.³ We also pointed out that after the removal of this polypeptide the filtrate still contained some residual antigen, which is in agreement with the findings of Abramson who has recently reported the presence of four to six minor pigmented components in addition to his major antigen.⁴

Because the phosphotungstic acid precipitate is thought by many to contain the active antigen, a study of its chemical nature was made.

EXPERIMENTAL

Phosphotungstic acid precipitate

An extract was made from an equal mixture of low and high ragweed pollen. From this the phosphotungstic acid precipitate was prepared by adding 10 ml of concentrated HCl and 5 g of phosphotungstic acid dissolved in HCl to each 90 ml of the crude extract. This mixture was chilled thoroughly and the precipitate centrifuged off and washed three times with portions of a cold solution containing 10 ml of concentrated HCl and 2.5 g of phosphotungstic acid per 100 ml of solution.

When this phosphotungstic acid precipitate of crude pollen extract was hydrolyzed with HCl a pigment separated out. This pigment was nitrogen free and belongs to the flavonol group. It has been shown by Heyl⁵ to be of two types—isorhamnetin and quercetin. However, we believe the isorhamnetin to be the dimethyl as well as the monomethyl ether of quercetin. Therefore three types of pigment are present, two isorhamnetins and one quercetin.

Distillation of the phosphotungstic acid precipitate with 12 per cent of HCl and 10 per cent of NaCl yielded methylfurfural and furfural.

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The methylfurfural indicates the presence of a methylpentose (rhamnose) and the furfural a pentose. In this procedure the methylfurfural and furfural are obtained quantitatively and from this the amount of carbohydrate can be determined.⁶

The washed phosphotungstic acid precipitate was dissolved in N NaOH and the resulting solution after standing 10 minutes was adjusted to a faint pink to phenolphthalein. This solution (because the carbohydrate has been freed) under proper conditions gives reduction of copper. The carbohydrate can be determined quantitatively by the Folin-Wu blood sugar method provided the proper sugar is used for the standard, or by the Van Slyke Manometric method.⁷

The phosphotungstic acid precipitate was suspended in water, H₂SO₄ added and the phosphotungstic acid removed by repeated extractions with amyl alcohol to which was added some ethyl alcohol and ether. The H₂SO₄ was removed by the addition of Ba(OH)₂. The resulting filtrate was slightly fermented by yeast which suggests that there may be a small amount of dextrose present in the phosphotungstic acid precipitate.

Thus we find present three types of pigment, namely the monomethyl and dimethyl ethers of quercetin (isorhamnetins) and quercetin, and three types of sugars—methylpentose, pentose, and dextrose.

Proteins, peptides, and basic amino acids and not carbohydrates are precipitated by phosphotungstic acid: yet the carbohydrate is present in the precipitate which means that it must be in combination with the nitrogenous substance precipitated and therefore is carried along with it. Thus the carbohydrate is not only united with the flavonol to form a glucoside but is also combined with the nitrogenous substance. Since mild alkaline hydrolysis readily liberated the carbohydrate it is probable that this union between the

The author is indebted to Professor J. H. Highberger, University of Cincinnati, for the amino nitrogen determinations (Van Slyke method).

Submitted December 14, 1942.

carbohydrate and the nitrogenous substance is with an ester linkage. This suggests that the structure of the antigen is a flavonol-carbohydrate-nitrogenous substance complex, which in structure is probably very similar to Warburg's yellow oxidation enzyme except that it contains no phosphoric acid.

This ester linkage makes the radicals in the a- and b- positions to the carboxy group more labile and hence more susceptible to oxidation which in turn explains why the pollen antigen is easily destroyed by oxidation. Thus pollen antigen, as is riboflavin, is stable in strong acid but is very sensitive to mild alkaline hydrolysis and to oxidation.

SEPARATION OF ACTIVE COMPONENTS FROM CRUDE RAGWEED POLLEN EXTRACT

Method of fractionation

In order to better understand the chemical nature of the active pollen antigen or antigens, the crude extract was separated into five fractions by the method outlined in Diagram 1. As prepared these fractions were reprecipitated several times then washed, dialyzed, frozen, and dried. Either these fractions are the components that pre-exist in the crude extract or due to mild acid hydrolysis they are units of which the antigen or antigens are composed.

Fraction 1

Fraction 1 (main antigen) has been described.² It is whitish in color when acid in reaction but when alkaline it is light yellow. It contains or is a polypeptide and has a minimal molecular weight (as determined by its sulphur content) of 4453 or as the hydrochloride of 4817.

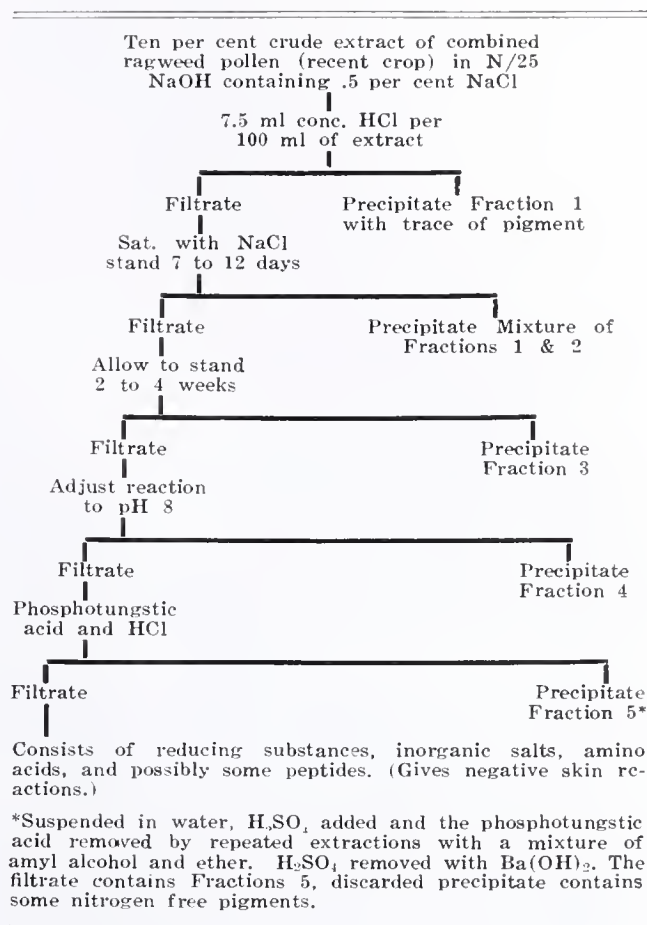
A solution of this fraction yielded methylfurfural upon distillation with HCl and NaCl which indicates the presence of a methylpentose (rhamnose). During hydrolysis with HCl a small amount of a dark brown precipitate appeared. This precipitate is nitrogen free and we believe it to be the dimethyl ether of quercetin (isorhamnetin).

The rhamnose content of the hydrochloride of Fraction 1 on a moisture free basis was 3.48 per cent. Therefore its minimal molecular weight as calculated by the rhamnose content is 4715. This compares favorably with 4817, the molecular weight as determined by the sulphur content; and with 5090 the molecular weight of Abramson's major antigen which he determined by the sedimentative method.⁸

Thus Fraction 1 is an isorhamnetin-rhamnose-polypeptide complex. The rhamnose is not only combined with the isorhamnetin to form a glu-

DIAGRAM 1

Showing the method of separating nitrogen containing fractions of crude ragweed pollen extract



coside but also with a carboxyl radical of the polypeptide to form an ester.

Fraction 2

Fraction 2 as prepared still contained 3.9 per cent of Fraction 1. It was greyish brown in color, readily soluble in alkaline solution and had no ash.

When this fraction was hydrolyzed a pigment (quercetin) separated out. Distillation of a solution of it containing HCl and NaCl yielded but very faint traces of methylfurfural and furfural which indicates that the carbohydrate was not a pentose. It was slowly fermented by yeast which suggests that it may be a dextrose. Corrected for impurity and on a moisture free basis Fraction 2 contained 8.2 per cent nitrogen and 15.4 per cent carbohydrate calculated as dextrose. A solution of this fraction had 15.7 per cent of its total nitrogen as free amino nitrogen (Van Slyke method) and after hydrolysis for 24 hours with 20 per cent HCl this increased to 93.4 per cent. Allowing for the impurity of this fraction these figures agree closely with those of a hexapeptide whose constituents are mono amino acids.

The minimal molecular weight as calculated by its dextrose content is 1168 and by its nitrogen

content (6 atoms of nitrogen per molecule) is 1024 or an average molecular weight of 1096.

This fraction, therefore, is a quercetin-dextrose-hexapeptide complex with a molecular weight of approximately 1100, the hexapeptide consists of mono amino acids.

Fraction 3

Fraction 3 was brown in color, contained 0.99 per cent ash, no phosphorous, and was readily soluble in alkaline solution. On a moisture and ash free basis it contained 4.38 per cent nitrogen, 17.06 per cent rhamnose, and isorhamnetin.

A solution of this fraction had slightly over one third of its total nitrogen as free amino nitrogen which after hydrolysis increased to 100 per cent. This hydrolyzed solution gave a positive Millon reaction. Therefore the nitrogen containing substance of this fraction must be a tripeptide which we believe consists of one molecule each of tyrosine, phenylalanine, and glutamic acid.

The theoretical molecular weight of this fraction is 951. The molecular weight as determined by its nitrogen content (3 atoms of nitrogen per molecule) is 959 and by its rhamnose content is 967. A solution of this fraction was made. It contained 0.308 mg nitrogen per ml and 1.20 mg rhamnose per ml. The theoretical ratio of rhamnose/nitrogen is 3.90; the ratio of this solution is 1.20/0.308 or 3.88. Thus this fraction is an isorhamnetin-rhamnose-tripeptide complex.

Fraction 4

Fraction 4 was blackish red in color, had a high ash content, and was slowly soluble in acid solution. On a moisture and ash free basis it contained 4.30 per cent nitrogen, it also contained a carbohydrate as it reduced copper solution, and on distillation with HCl and NaCl the distillate contained furfural. We were unable to determine the exact nature of this carbohydrate fraction but it appeared to be a pentose. The nitrogen containing component of it was apparently lysine. On hydrolysis isorhamnetin separated out. The theoretical molecular weight is 640, its molecular weight based upon its nitrogen content (2 atoms of nitrogen per molecule) is 651. This fraction is an isorhamnetin-pentose-lysine complex.

Fraction 5

Fraction 5 was partly analyzed in solution and the remainder was frozen and dried. It was light brown in color, hygroscopic, and contained 3 molecules of water. It contained on an ash free basis 11.30 per cent nitrogen, 11.44 per cent rhamnose. The m.p. of the carbohydrate which was isolated from this fraction as the hydrate

was 86-92°C. Upon hydrolysis the pigment isorhamnetin separated out.

The original solution gave a positive biuret reaction tending toward the rose side indicating a short chain polypeptide. The Willstatter-Waldschmidt-Leitz titration (titrated in 50 and 95 per cent alcohol with alcoholic KOH and thymolphthalein) indicated it to be over 98 per cent peptide. The free amino nitrogen was 12.3 per cent of the total nitrogen; which after hydrolysis increased to 42.2 per cent. The hydrolyzed solution gave a strong diazo reaction for histidine and a positive Sakaguchi reaction for arginine. Millon's reaction was negative. After the basic amino acids were removed by precipitation with phosphotungstic acid the remaining nitrogen containing substances were completely precipitated by saturation with Ba(OH)₂ and the addition of four parts of C₂H₅OH. Thus the remaining amino acids were dicarboxylic acids.

It is evident that this substance is a tetrapeptide containing one molecule each of arginine and histidine and two molecules of a dicarboxylic acid (glutamic). Its theoretical molecular weight (3 H₂O) is 1117. Its molecular weight as determined by its nitrogen content (9 atoms of nitrogen per molecule) is 1110, and as determined by its rhamnose content is 1136. Fraction 5 therefore, is an isorhamnetin-rhamnose-tetrapeptide complex.

IMMUNOLOGICAL ACTIVITY

Fraction 1 has given a positive skin reaction in every one of over two hundred cases who were skin sensitive to the crude ragweed extract. Fraction 2 also gave positive skin reactions in all cases tested, however it must be borne in mind that this fraction was not absolutely pure and therefore some of this reaction might be due to the presence of a small amount of Fraction 1. In a small group of ragweed sensitive cases tested with Fraction 3, all gave a positive skin reaction and one case developed urticaria and asthma. It also produces acute shock in pigs previously sensitized with crude extract. Of a group of cases tested with Fractions 4 and 5 some showed a positive skin reaction.

In order to obtain accurate comparative data on the antigenic activity of these five fractions it would be necessary to compare molar solutions as well as solutions standardized on their pigment, carbohydrate, and nitrogen content. We hope to report such studies at a future date.

The therapeutic use of Fraction 1 gave exceptionally good clinical results, and the use of a mixture of Fractions 2 and 3 which contained a small amount of Fraction 1 also gave good results; whereas a mixture of Fractions 4 and 5 was not very satisfactory. This suggests that

from a clinical aspect Fractions 1, 2 and 3 may be more important than are Fractions 4 and 5.

DISCUSSION

The nitrogen content of the phosphotungstic acid precipitate has been considered by some to represent the total active substance of the pollen extract. We have shown that this precipitate contains not only a nitrogenous substance but also flavonol pigments and carbohydrates.

We have separated from the crude extract five active fractions all of which are flavonol-carbohydrate-peptide complexes. These fractions may pre-exist in the pollen extract as such or due to the mild acid hydrolysis which may have occurred in the process of separation they may represent products from a more complex structure. If the original antigen is of a larger molecular size than these fractions then it is built up from these fractions in the same way that a protein is built up from amino acids except that these fractions would be united to one another by means of an additional carbohydrate molecule. The flavonol and carbohydrate are combined as a glucoside and together undoubtedly function as the carbohydrate component of the antigen.

In the complete pollen antigen complex the carbohydrate molecule is bound in at both ends namely, at one end by the flavonol pigment and at the other end by the peptide. As a result the usual tests for carbohydrate are apt to be negative unless the carbohydrate is previously freed by mild hydrolysis with alkali. Their presence can also be shown by the distillative procedure with HCl and NaCl by which furfural or methylfurfural is obtained quantitatively. This procedure is more drastic and effective than the ordinary Molisch test done without heat. It is possible, although we have never tried it, that the carbohydrate molecule could be freed from the pollen antigen complex by means of an enzyme found in bitter almonds.

Roth and Nelson⁹ reported that on successive extraction of pollen with distilled H₂O that the tenth extract failed to contain any antigen capable of producing a skin reaction although it did contain an antigen capable of producing precipitins. We have repeated these experiments and find that the ability of the extract to produce a skin reaction is in direct proportion to its carbohydrate content and that the tenth extract not only was incapable of producing a skin reaction but it also contained no carbohydrate. However, if this pollen was then re-extracted with Coca's solution instead of distilled H₂O it again contained an appreciable amount of carbohydrate and was also capable of producing a strong skin reaction. This suggests that the presence of the carbohydrate component of the antigen is necessary in order to produce a skin reaction. This

conception might be disputed because Stull¹⁰ reported that his Fraction 1 (which is active) was free of carbohydrates. However, we have prepared his fraction and found that when distilled with HCl and NaCl methylfurfural comes over in the distillate which indicates the presence of rhamnose. Further although Abramson¹ originally reported his major antigen to contain no carbohydrate in a more recent publication he reports its presence.

The X-ray picture of Fraction 1 as previously reported indicated it to be a complex molecule.² X-ray pictures of the other fractions however, do not show them to have such a complex structure.

All of these fractions will give skin reactions to sensitive individuals. If in the pollen these fractions exist in combination with each other to form more complex structures then it is possible that when the pollen antigen reaches the respiratory tract the respiratory secretions break it into the various fractions.

Strong evidence of the purity of these fractions is shown in the determination of their molecular weights. Mere reprecipitation is not proof of purity. However, the fact that we have determined the molecular weights by several methods and have obtained results which check well within experimental error offers the best evidence possible of the purity of the material analyzed. For example: in the case of Fraction 1 the molecular weight as determined by its sulphur content and its sugar content check within experimental error and in turn these figures compare favorably with the molecular weight of Abramson's major antigen which he determined by the sedimentative method.

SUMMARY

1. It has been shown that the phosphotungstic acid precipitate of crude ragweed extract contains besides nitrogenous substances flavonol pigments and carbohydrates.

2. Crude ragweed extract has been separated into five active components. All of these components are flavonol-carbohydrate-peptide complexes, with the flavonol-glucoside being combined to the peptide by an ester linkage. Thus the complete pollen antigen consists of two components—the carbohydrate component (flavonol-glucoside) and the peptide component.

3. It is possible that as these five fractions pre-exist in the crude extract they may be in various combinations with one another to form a more complex antigen. If this is the case, then the pollen antigen or antigens are made up of various combinations of these fractions; which means that these fractions are the units from which the more complex structures are built.

4. The molecular weights of these fractions varied from 4817 to 650.

5. There is some evidence presented that the ability of the antigen to produce specific skin reactions is dependent on the presence of the carbohydrate component.

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Emotional Components of Illness

The medical student and physician should be aware constantly of the emotional components of illness. Each and every person experiences anxiety when ill. The degree of this anxiety depends on the nature of the illness and the personality characteristics of the patient. Although the expression of anxiety may vary considerably, a common mechanism is that of self absorption and retirement from reality. In this emotional regression the patient seeks for and needs the security symbolized by the nurse and physician. This interpersonal relationship is dependent, not only on the technical skill and personal charm of the medical attendants, but on what the latter may represent emotionally to the patient. In this regard it is necessary for the nurse and physician to be aware of their emotional significance to the patient and thus to use it intelligently. This is particularly true during convalescence when the nurse and physician should aid the patient to redirect his emotional energies into useful, independent and adult channels of interest and work. Otherwise, further dependence on the physician or nurse may delay "emotional healing" and promote invalidism.—John Romano, M.D., Cincinnati; *Conn. S. M. Jour.*, Vol. VII, No. 1, January, 1943.

Industrial Dermatoses

Cleanliness is by far the most important single measure for the prevention of industrial dermatoses. By cleanliness, we mean not only cleanliness of the person, but cleanliness of the room, the machines, and the clothes. Floors, walls, and ceilings of rooms in which there are industrial irritants should be wet-cleaned daily. Machines and tools on which industrial irritants deposit should also be cleaned daily. Adequate washing facilities should be provided for workers handling industrial skin irritants. Workers whose clothes become soiled with industrial skin irritants should be compelled to take supervised shower baths after work, before leaving the factory. It may be necessary to have a double set of locker rooms to be sure that workers do not put on dirty clothes before going home. Care must be exercised so that the soaps and other cleansers used by workers to remove dirt, dyes, oils, etc., will not themselves cause dermatitis. Workers who become soiled with oils, greases, and dyes are likely, if left to themselves, to use the most available and most rapid-acting solvent to clean the skin. They do not stop to consider the irritant action of the cleanser. Many cases of dermatitis among workers have been caused by the cleansers used by workers before going home. The safety engineers should see that the workers use only such cleansers as will not act as skin irritants.

An industrial cleanser for the normal skin should have the following qualities:

1. It should be freely soluble in hard, soft, cold, or hot water.
2. It should remove foreign soil, fats, and oils without harming the skin.
3. It should not contain harsh abrasives or irritant scrubbers.
4. It should be handy to use in cake form, or should flow easily through soap dispensers if in granulated powder or liquid form.
5. It should not deteriorate or become insect-infested.

For those occupations in which excessive scrubbing with such soap is necessary in order to remove dyes or tenacious oil, it may be better to add to such a cleanser a small amount of alkali, such as trisodium phosphate, or an organic solvent, such as naphtha. Whenever such alkali-reinforced cleansers are used, it is best to supply the worker with an emollient cream to be rubbed into the skin after washing so as to replace the fat removed by the strong cleanser—Louis Schwartz, M.D., Bethesda, Md.; *N.Y.S. Jour. of Med.*, Vol. 42, No. 16, August 15, 1942.

Calcific Aortic Stenosis

S. D. SIMON, M.D.

CLINICAL interest in the subject of aortic stenosis has increased sharply in recent years, largely because of the attempt to distinguish a special type of this disease known as calcific or calcareous stenosis. While it is true that calcification is only a single aspect of the general problem of aortic stenosis, it nevertheless contributes certain features of unique diagnostic and prognostic significance. It is therefore reasonable to argue that the clinical detection of calcific changes in the aortic valve has an importance far beyond that of the merely "academic".

The purpose of this paper is to stress those aspects of aortic stenosis which predominate in the calcific form of the disease. The subject matter is derived almost entirely from personal experience, the clinical progress of patients with calcific aortic stenosis having been observed over a period of time ranging from two months to nine years. With few exceptions, calcification of the aortic valve was demonstrated fluoroscopically during life and subsequently confirmed by necropsy examination. No statistical analysis will be made, but data will be presented merely in terms of relative frequency or rarity. Treatment will not be discussed, since it involves the same general principles and the same symptomatic measures employed in treating heart disease of other kinds.

The etiology of calcific aortic stenosis is no longer obscure. It has become more and more clear that this disease is almost always a manifestation of rheumatic carditis (Dry and Willius) (Hall and Ichioka), and only occasionally it is due to non-rheumatic aortic disease such as Mönckeberg's sclerosis (McGinn and White). It tends to occur most frequently in those patients who initially had a rather mild rheumatic infection in which the myocardium and the mitral valve escaped with little or no damage (Dry and Willius). Three-fourths of our own series had a clear-cut history of rheumatic fever or its equivalent. Pathologically the findings are those of aortic stenosis, accompanied by the deposit of calcium in and around the base of the cusps; the heaviest calcium deposits are generally associated with the severest grades of stenosis. A concomitant mitral lesion is found in about 40 per cent of the cases.

The diagnosis of calcific aortic stenosis depends on the recognition of the stenosis itself, and on the X-ray demonstration of calcification of the

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valve. It occurs most frequently in middle-aged or elderly males (our oldest patient was 82), but may occur at almost any age in either males or females with well-established rheumatic heart disease. The clinical picture reveals itself as simple aortic stenosis, the mere existence of which should urge the clinician to look for evidences of calcification. Once the diagnosis is made, certain specific implications are inescapable. Foremost is the simple fact that a high degree of stenosis with a large heart and obvious physical signs does not preclude a long and active life. Congestive failure is ordinarily a late and grave complication; the duration of life must then be measured in months, rarely in years. Long before this, the patient is likely to complain of substernal discomfort (rather than typical angina), shortness of breath, dizziness, or syncope. The anginal syndrome is important, since it may warn the physician that his patient is liable to sudden death (Contratto and Levine). "Light-headedness" and dizziness are probably mild manifestations of the tendency to syncope so common in aortic stenosis; it is possible that these phenomena are in some obscure way related to the carotid sinus reflex.

The physical signs of high-grade aortic stenosis are definite and distinctive. In our experience the *most constant sign* is a loud rough systolic murmur heard best over the first and second right interspaces; the *most significant sign* is a systolic thrill felt in this same area. The thrill is practically pathognomonic; we have for years carefully palpated this area of the chest in all kinds of cardiac and aortic lesions, but have rarely encountered a definite systolic thrill except in aortic stenosis. The systolic murmur when loud in quality and widely propagated may lead to the early suspicion of aortic stenosis, but it alone cannot establish the diagnosis. A "plateau pulse" when present is likewise pathognomonic, but unfortunately this characteristic form of the pulse is difficult to identify; in our ex-

Read before the Section on Medicine, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, April 28-30, 1942.

perience, however, it escapes detection principally because the average physician has forgotten the art of palpating the pulse, being generally content to grasp the radial artery instead of gently palpating the larger vessels, such as the brachial. The quality of the second aortic sound is helpful, but of no great moment; it is generally stated to be diminished or almost inaudible, but we have encountered many exceptions to this rule. An aortic diastolic murmur is heard in roughly one-half (or more) of patients with aortic stenosis, but the murmur is frequently elusive, inconstant, and of brief duration; the typical long-drawn murmur of free aortic regurgitation is seldom heard, and peripheral signs of aortic insufficiency are inconspicuous. The blood pressure is highly variable not only from case to case but in the same patient from time to time. The text-book type of blood pressure, characterized by a low systolic and a low pulse pressure, is definitely an exception.

Since the systolic thrill of aortic stenosis is highly important in the diagnosis, the method of eliciting this sign requires special emphasis. The patient is instructed to lean forward and to exhale fully; at the moment of complete expiration, the hand should be placed flat and held firmly but without undue tension over the aortic area, covering both first and second interspaces. It is not uncommon to feel the characteristic "running" sensation of the thrill for only a few heart cycles after this maneuver is completed. In many instances no special technique is necessary, the thrill being obvious even to the most casual palpation. Occasionally the vibrations set up by the diastolic slap which often accompanies a dilated aorta may simulate a thrill, but no great skill is required to distinguish between them.

Since the physical signs of calcific stenosis do not differ significantly from those of non-calcific stenosis, it is necessary to employ X-ray examination to complete the diagnosis. Any practitioner who possesses a fluoroscope can readily learn to identify the intracardiac densities of valvular calcification. When the fluoroscopic screen is narrowed down to about four inches square, the eyes fully accommodated, and the patient rotated into the right antero-oblique position, these densities can be seen exhibiting a characteristic dancing motion within the cardiac silhouette. Occasionally they are best seen in the lateral position; this serves likewise to distinguish the more superior-anterior location of the aortic valve from that of the mitral. Fluoroscopic examination is definitely superior to X-ray films in the detection of these densities.

The importance of demonstrating calcification of the aortic valve is obvious. It immediately establishes the diagnosis of aortic stenosis where this diagnosis may have been in doubt; it serves

to distinguish between syphilitic and rheumatic heart disease, since syphilis is never responsible for this type of calcification (many of our patients happened to have positive Wassermann reactions); and it orients the physician in a prognostic sense, enabling him to suspect and prepare for the clinical phenomena so commonly associated with this type of heart disease. The manifestations particularly to be anticipated are syncope, sudden unexpected exitus, and a type of congestive failure which is singularly unremitting.

The prognosis in any given case depends largely on the stage of the disease present when the patient first comes under observation. It is common knowledge that patients with aortic stenosis may live out a full life-time with little disability. However the prognosis is much graver if there is a complicating mitral lesion, a well-marked aortic insufficiency or a very high degree of stenosis. The degree of stenosis can be judged by the extent of the physical signs, the amount of calcification, and the relative quietness of the second aortic sound. The prognosis in any given case is uncertain, despite the relative optimism which is statistically permissible. The danger signals which serve to guide prognosis in many other types of heart disease are lacking in calcific aortic stenosis. Such phenomena as mild, reversible congestive failure, classical angina pectoris, and auricular fibrillation rarely occur to warn of impending disaster. In calcific aortic stenosis the clinician must be prepared to witness sudden dissolution or intractable congestive failure.

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The medical profession deserves the grateful recognition and regard of all other callings in modern life. It has always insisted that the practice of medicine is a profession and not a trade. Trade is occupation for livelihood; profession is occupation for the service of the world. Trade is occupation for joy of the result; profession is occupation for joy in the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade makes one the rival of every other trader; profession makes one the co-operator with all his colleagues.—President Faunce, of Brown University, in an address to the Rhode Island Medical Society, 1905.

Treatment of Seborrheic Dermatitis*

H. N. COLE, M.D.

ECZEMA seborrheicum or seborrheic dermatitis is a distinct clinical entity with a great variability of objective findings, in fact so much so that it will be necessary to describe the symptoms at some length. Many dermatologists have the impression that some cases seen in childhood as seborrheic dermatitis later in life have been found to present a typical psoriasis.

SUBJECTIVE COMPLAINTS

Itching is a prominent manifestation in the average case of seborrheic dermatitis and it may be very severe, particularly around the ears, in the scalp and in the flexural and intertriginous areas.

OBJECTIVE MANIFESTATIONS

There are certain parts of the body that are more prone than others to outbreaks of this disease—they being, in fact, the parts well supplied with sebaceous and coil glands. Thus in a typical seborrheic dermatitis one would particularly expect to find lesions of the scalp, back of the ears and in the ears, at the borders of the hair anteriorly, in the eyebrows, even on the lids and palpebral borders, along the sides of the nose, over the sternal and interscapular areas, around the umbilicus and in the internatal and genitocrural folds. In persons with dependent breasts, lesions may be found under the breasts and it is not uncommon to find axillary involvement. The typical case of the disease may show involvement of all these areas or the process may be confined to but one or two of them. Thus it is not uncommon to find the process confined to the sulcus back of the ears for months or years and perhaps also in the aural canals. Again, there may be an involvement of the scalp alone or as well of the eyebrows and sides of the nose. On the other hand, certain persons may have persistent, characteristic areas confined to the sternal and interscapular regions.

The lesions themselves have a tendency to assume a circinate or irregular outline and on the trunk especially there may be a suggestion of a petaloid or clover leaf like arrangement of the lesions. Over the scalp the areas may be discrete with a spot here and there involved or there may be scaly, greasy, yellowish areas along the borders of the hair, particularly in front. At times the lesions on the head and back of the ears may weep and become crusted. Occasionally, the

scalp will show a diffuse fine scaly process and at the same time fine scales will be found in the eyebrows, while along the sides of the nose they may be more greasy. Such cases may also have involvement of the edges of the lids, the so-called granulated lids. Seborrheic dermatitis is one of the diseases that often shows a rather characteristic color to the lesions, particularly on the trunk—the areas being of reddish brown or reddish yellow tint. Nearly always such areas reveal the greasy character from which the disease gets its name.

The type of lesion found in seborrheic dermatitis will depend in part on the stage of the disease. In the acute cases there may be more of a tendency to exudation of serum and the formation of secondary scaling and crusting. This condition will be found particularly back of the ear, in the scalp, under the arms and in the genitocrural folds. As the disease gets older there is more of a tendency to the formation of papular and scaly lesions. In some chronic cases, particularly on the trunk, there may be grouped papular lesions or petaloid, reddish yellow, greasy scaly areas. In other cases of the chronic type, the localized areas, as the result of secondary scratching, may gradually assume a thickened scaly character resembling neurodermatitis. Moreover, in a seborrheic dermatitis, it is not unusual to find more than one type of lesion on the same person. For example, there may be a dry scaly process of the scalp with cracking and moist exudation and crusting around the ears or on other areas.

TREATMENT AND COURSE OF THE DISEASE

It is generally felt that seborrheic dermatitis begins in the scalp and spreads to the ears, eyebrows, eyelids and edges of the lids, sides of the nose, lips in the form of a cheilitis, sternal and interscapular areas, umbilicus, axillae and genitocrural and internatal folds. The disease is more or less chronic and there is a tendency to acute flare ups. Many of the cases may be quite comfortable in the summer and not trouble just as soon as the fall weather and cold starts. This seasonal character may go on year after year. In fact, it is not uncommon to see such a case with a severe character, clear up entirely if they change from a cold winter climate and get out in the sun, e.g., a trip to Florida.

The treatment of this disease is usually satisfactory for the acute attack, but there is a tendency for the process to recur. Thus the patient should be warned that at the first appearance of trouble therapy should be employed to counteract an attack.

*From the Department of Dermatology and Syphilology of the Western Reserve University.

Dr. Cole was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

Any individual having a tendency to seborrheic dermatitis should keep the scalp in the best of condition and they should be warned of the evils of scratching with the resultant secondary infection. We have found that a lotion of 1 to 2 per cent salicylic acid and 10 per cent liquor carbonis detergens in Bay Rum will go far to keep the scalp in good condition. Or again one may rub into the scalp a 2½ per cent Resorcinol Monoacetate, 1 per cent Salicylic Acid, and 12 per cent Spirits Formicari in Bay Rum. Resorcinol Monoacetate is preferred to Resorcin since the latter stains gray or white hair green. Moreover, Resorcinol Monoacetate N.N.R. should be preferred to Euresol (the same drug) because of the greatly lessened cost.

With a child in the acute stage where there is a great deal of scratching and secondary infection, it is well to put them in bed and spread eagle them, putting cuffs around the ankles and wrists and tying them down. The position should be changed four times a day. With this simple measure, the entire picture will be changed in 24 hours and within a few hours the patient will be quite content. Even with an adult it is necessary to warn them of the danger of scratching and of secondary infection. In fact it may even be necessary for them to wear cotton gloves at night.

With acute exuding, weeping lesions one may employ rather warm compresses or baths of Potassium Permanganate 1:3000, or of boric acid, 1 per cent. With localized lesions it will often be found satisfactory to use constant compressions on the lesions of aluminum acetate, 1 or 2 per cent, or of the above Potassium Permanganate. If aluminum acetate compresses are desired, order Burow's Solution, N.F., which is 8 per cent and advise the patient to dilute it down to 2 per cent with tap water. The compresses should be covered with oiled silk or oiled paper and replenished with solution as needed. As soon as the exudation and acute symptoms have subsided, one may employ mildly stimulating remedies according to the indications. If the lesions are on the scalp, have the hair cut short, or in a severe case even clipped. Any preparation for the scalp should, if possible, be made in one of the so-called water soluble or vanishing cream bases that do not render the hair so sticky. It is true that some of these bases are irritating. An ointment of 3 per cent sulfur may be tried, or a preparation of 3 per cent Hydrargyri Ammoniate and 20 per cent liquor carbonis detergens. Sulfur is, within limits, considered more or less as a specific for seborrheic dermatitis. It must be used with care, however, and such a preparation on the genitalia or around the intergluteal fold would act like coal oil on a fire. Both of the above ointments would act nicely

on seborrheic dermatitis of the trunk, though not of the axillae or in intertriginous areas. In place of sulfur for the scalp, some dermatologists prefer the compound suggested by Bronson consisting of 1½ per cent calomel and 3 per cent white precipitate in a vanishing cream base or in equal parts of petroleum and lanolin.

With oozing seborrheic dermatitis of the ear canals, frequent irrigations with an ear syringe of hot boric acid solution will be of value, or again of Potassium Permanganate 1:3000, or of aluminum acetate, 2 per cent. One of the most valuable preparations to be used in this location is the local application of Hydrosal Ointment, a colloidal aluminum acetate ointment. Occasionally a 5 or 10 per cent ointment of Sulfathiazole in cold cream will be helpful for lesions in this location. Often mercury preparations will be of service for the cracking, exuding and crusted processes back of the ears; e.g., Liquor Carbonis Detergens 20 per cent, Hydrargyri Ammoniate 3 per cent, in Petrolatum and Lanolin, equal parts. If your patient is sensitive to mercury it will be found that Bismuth Tribromphenate, N.N.R., takes its place very nicely. Moreover, it also acts as a stimulant and it is rare indeed that a patient will be irritated by it. For blepharitis (granular lids) seen in this disease, employ hot boric compresses and 1 per cent Hydrargyri oxidi flavi in Unguentum Aqua Rosae. Many times with localized areas of seborrheic dermatitis more stimulation is necessary and may require the use of ointments of Crude Coal Tar, 10 per cent, or of 5 to 10 per cent Oil of Cade.

Sometimes with exuding areas in the axillae and in other intertriginous areas, Calamine Liniment, N.F., may be used or one may add to it 10 to 20 per cent Liquor Carbonis Detergens.

With stubborn resistant cases, radiotherapy in the hands of an expert in a few doses of 50 r, unfiltered, once a week, may be of great help. Over the scalp, the doses should not exceed 38 r, unfiltered or with 0.5 mm. aluminum screen. As a rule quartz lamp therapy is prone to irritate areas of seborrheic dermatitis.

Reaction to therapy is generally good and the attack clears up. Then the patient must be warned what to expect and to regulate his activities to correspond with the disease. They should take the best of care of their scalp; harsh soaps should not be used. Tar soap generally works well on the scalp. They should abstain from the use of alcohol and in their diet refrain from pork products, nuts, chocolate, sea foods and too much butter or cream. Care should be taken not to wear wool next to the skin. This is particularly bad with children or young women who have the vogue of wearing sweaters with nothing underneath them.

Finally, in extreme cases change of climate and sunshine is to be considered.

Suggestions for Interns About to Become Medical Officers of the Army of the United States*

WESLEY L. FURSTE, II, A.B., M.D.

AT present, very many of the interns of the country are preparing for and shortly will be going on active duty as medical officers of the Army of the United States. Undoubtedly, they are and will be wanting to know what to buy and where, what personal things should be taken along, how financial matters should be taken care of, and the answers to numerous other questions.

Having gone through a like experience last Spring and Summer, the author offers the following suggestions as answers to the more important of these questions.

REFERENCES

The Officer's Guide,¹ frequently revised, is an excellent source of information for new Army medical officers. It is a popular purchase. At the station of duty, daily bulletins, memoranda, and circulars of information give many helpful suggestions and hints.

CLOTHES

In general, there are four places where the officer may procure his clothes: the Quartermaster offices at posts and camps, the Post Exchanges, the commercial military stores, and the retail clothing houses. The Quartermaster has real bargains for the officers, e.g., high shoes for about three and a half dollars which retail at seven or eight dollars and field jackets which may be purchased at half to two-thirds of the prices of the retail clothing houses. The Quartermaster, however, sells only those items which are regularly issued to the enlisted man; and, sometimes, he does not sell such items on account of their scarcity. The Post Exchange, a general store known in the Army as the P.X., sells to both officers and enlisted men; but it has prices which are occasionally greater than those of the commercial military stores and the retail clothing houses. The military stores, found in all the larger cities, have at reasonable prices all the needs of the medical officers. Finally, the retail clothing houses have both the average and also the most expensive and very best grade of Army clothes.

The newly commissioned officer will do well to buy a minimum of equipment and to buy only

The Author

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the definitely standard items before reporting to his first station of duty. Then, upon reporting, he will find that he has not spent his money for many articles which he cannot use on account of their prohibition by his local commander.

For summer wear, he will want to have the following: two khaki shirts; two pair of khaki trousers; an officer's belt with a brass buckle and a brass covering for the free end of the belt; one khaki tie; one khaki overseas cap; one pair of Army russet high shoes and of Army russet low shoes together with a pair of shoe trees, a shoe brush, and polish; two pairs of khaki dress socks and two pairs of gray work socks; a field jacket; four suits of underwear; four handkerchiefs; and a raincoat. Special care should be taken in purchasing the raincoat which may be a waterproof olive-drab coat of commercial pattern with shoulder loops. The raincoat should reach somewhat below the knees; and it will be entirely unsatisfactory under field conditions unless it will stand exposure to hard, driving rain for a long period without leaking.

For winter wear, the officer will want the same items as for summer, except that his shirts, trousers, and cap will be olive-drab instead of khaki. In addition, he will want to have an olive-drab blouse, a pair of olive-drab trousers, and a pair of drab trousers (commonly called "pinks"). One of the most expensive of the winter purchases and one on which the officer may easily make a mistake is the overcoat which is sold in two styles—the long and the short.

For insignia, each officer will need at least two pairs of insignia of grade, two pairs of caducei, and two pairs of the letters "U.S.". Some officers have three or four pairs of each of these different insignia to avoid the inconvenience of changing them frequently. To keep them and the brass of the belt shining, Blitz, The Polishing Cloth*

*This article does not contain official Army information. It expresses only the personal opinions of the author.

*Made by Auburn Specialties Co., Auburn, N. Y.; and distributed by Gemsco, 395 4th Ave., New York, N. Y.

purchasable at most military stores, is very useful.

FINANCES

Table 1 gives the monthly pay of a United States Army Medical Corps first lieutenant, which practically all interns will be upon going on active duty.

For the officer who so desires, the War Department will take designated amounts from his

Table 1. Monthly pay of a United States Army Medical Corps first lieutenant who has been in service less than three years. Base pay is increased 10% for overseas service. Officers, living in adequate quarters provided by the Government, are not given a rental allowance.

	Base Pay	Rental Allowance	Subsistence	Total
Without dependents	\$166.67	\$60.00	\$21.00	\$247.67
With dependents	\$166.67	\$75.00	\$42.00	\$283.67

monthly pay; and, with these sums, will meet premiums on National Service Life Insurance and on non-government insurance policies, will buy United States Bonds in his name, and will make deposits in a bank in his name or the name of one or some of his dependents.

Each newly commissioned officer has the privilege of subscribing to a maximum of \$10,000 of inexpensive and highly desirable National Service Life Insurance. The monthly premiums for this insurance, based on a five year level premium term plan, are determined by the officer's age; and are given in table 2. At any time after

Table 2. Monthly premiums for each \$1,000 of National Service Life Insurance, based on five year level premium term plan. Data is from Insurance Form 350 of Veterans Administration.

Age	Monthly Premium
25	\$0.67
26	0.68
27	0.69
28	0.69
29	0.70
30	0.71
31	0.72
32	0.73
33	0.74
34	0.75

the insurance has been in effect for one year and within the five year period, National Service Life Insurance on the five year level premium term plan may be exchanged for or converted to policies of insurance on the ordinary life, twenty-payment life, or thirty-payment life plans. All five year level premium term policies shall cease and terminate at the expiration of the five year term period. The insurance may be applied for in favor of one or more of the following persons: wife, child (including adopted child, stepchild, or illegitimate child), parent (including person in loco parentis), brother or sister (whole or half blood) of the insured. If the

beneficiary to whom payment is first made is under 30 years of age at the time of maturity, the insurance shall be payable in 240 equal monthly installments; if the beneficiary to whom payment is first made is 30 or more years of age at the time of maturity, in equal monthly installments for 120 months certain, with such payments continuing during the remaining lifetime of such beneficiary.

Each officer will find it advisable to determine the validity in wartime of any non-government insurance he has had prior to receiving his commission.

The officer, whether married or unmarried, should make a will in order that, should he not return, his dependents, if any, are properly cared for and his possessions are distributed according to his wishes.

The officer will be foresighted by placing all valuable documents in a safety deposit box, accessible to both his wife and himself. In order that his wife has legal proof of her relationship to him if she has to collect insurance or other funds, the officer may place their marriage certificate and their birth certificates in such a box.

The officer will be wise in notifying all professional and social organizations and clubs of his entrance into the Army. Many of these will then courteously suspend his dues for the duration although they will allow him to continue to enjoy all the privileges of a member paying full dues.

The officer will do well to take along enough money in the form of cash or American Express Travelers Cheques to last him for at least one month. In a locality far from home, it is embarrassing to ask strangers to cash checks and sometimes fruitless. Moreover, the officer may not receive his travel allowance until two or three weeks after reporting; and will definitely not get his monthly pay until the end of the first month.

EQUIPMENT FOR CORRESPONDENCE

Since certain military correspondence will have to be carried on, the following items will be found very useful:

- Inexpensive, collapsible card table.
- Goose-neck lamp with a wire about 20 feet long.
- Plain white envelopes, 9½x4 inches (the standard Army size).
- Plain white paper 10½x8 inches (the standard Army size).
- Carbon paper.
- Fountain pen and pencil.
- Collapsible, paper, alphabet file, 15x10 inches (legal size).

When erected, the card table makes a convenient desk. The wire on the lamp for the table ought to be about 20 feet long so that

there is a good possibility of it reaching the nearest electrical outlet. A piece of carbon paper is very useful in making copies of military letters when the original is written. The collapsible file is very convenient for keeping in a readily accessible place all important Army papers, such as original commission, official statement of commissioned service which is necessary to obtain the uniform allowance, and all orders; in addition, this type of file does not take much space and is not heavy.

MISCELLANEOUS

The officer will, of course, want to take all necessary toilet articles, namely comb, hair brush, tooth brush, tooth powder, safety razor with extra blades, shaving soap stick, two medium sized towels, two bars of skin soap, nail file, and scissors. Toothpowder and a shaving soap stick are taken—not tooth paste and a tube of shaving soap—because, if the officer's belongings are crushed, the powder and stick will not smear over everything as perhaps the pastes will.

A bar of soap for washing clothes, which does not take much space, will be found to be very useful when laundry service is so poor that laundry is away for ten days to two weeks. A small compact sewing kit, containing Army buttons and thread will also be very useful, for sometimes the only individual available to take care of the officer's clothes will be he, himself.

Since the officer may move great distances, sometimes quite frequently and quite suddenly, he is not advised, on account of losing some of his mail, to notify all friends, business associates, and medical publishing houses each time he moves. Rather, he is advised to ask someone at his home, upon whom he can depend, to receive all his mail and to forward it to him at regular intervals, such as a week. Then, the officer will need to notify only this one individual at home each time he changes his Army address.

If space can be found, a standard textbook of medicine and one of surgery may be brought along. Although the officer will find little time for referring to them, he will be glad to have them when he decides to read about some topic of medicine or surgery.

Officers find that living quarters for their families are highly priced, poorly furnished, small, difficult to find, far from the posts and camps, and in general inadequate. Moreover, there may be frequent and unpredictable changes of station. Many officers, however, while in the United States, take their wives with them.

LUXURIES

A portable radio, which plays by either the dry battery with it or an electrical outlet, a small fan, a small electric heater, and an auto-

mobile with good tires are some of the luxuries which make Army life more pleasant. Sometimes, the radio will be the only available source of unofficial news from the world. The fan and the heater will make the barracks room, the temperature of which is sometimes close to that of the outside, more like home. The car may be the only way, besides walking, of getting about the posts or camps, some of which stretch for miles in all directions.

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Clinical and Public Health Aspects of Trichinosis

Stages and Time of Onset After infection	Location of Parasites	Symptoms Which may be Exhibited	Sometimes Tentatively Diagnosed as
Enteral 24 to 72 Hours	Larvae and Adults in Intestinal Lumen and Villi	Nausea Vomiting Diarrhea Constipation Abdominal Pain	Typhoid Fever Food Poisoning Intestinal Influenza Colitis Appendicitis
	Larvae in Blood Stream and Muscles	Eosinophilia Irregular Hyperpyrexia Edema (Especially Suborbital) Conjunctivitis Photophobia Myalgia Sore Throat Dyspnoea Cough Scarlatini-form Rash Rose Spots Urticaria Pleurisy Pneumonia	Arthritis Rheumatism Upper Respiratory Infection Laryngitis Conjunctivitis Influenza Intercostal Neuritis Measles Frontal Sinusitis Asthma Pleurisy Pneumonia
Parenteral After 4 to 5 Days	Larvae Passing Through Heart	Chest Pain Tachycardia Apical Murmurs Dicrotic Pulse	Myocarditis Endocarditis
	Larvae in Brain and Meninges	Severe Headache Malaise Marked Hyperpyrexia Disorientation Delirium Coma	Encephalitis Meningitis Poliomyelitis

Symptomatology of trichinosis and the conditions with which the disease may be confused.—Willard H. Wright, M.D., Bethesda, Md.; The Journal Lancet, Vol. LXII, No. 11, New Series, November, 1942.

The McBurney Incision in Appendicitis

From the Cleveland Appendicitis Survey

JOHN D. BRETT, M.D., and RALPH M. WATKINS, M.D., Cleveland, Ohio

AS stated in previous reports^{1 2 3} our series of 19,401 cases of appendicitis include only those in which the postoperative and pathological diagnoses were acute appendicitis (uncomplicated), acute appendicitis with peritonitis or acute appendicitis with abscess. Therefore, it can be understood that the incisions used in all these operations were fitted and especially adapted to appendicitis in all the cases in which the diagnosis was made before operation. In any large series like this a fairly large number of cases is bound to be included in which the operation was more or less exploratory in type; we all know that a definite pre-operative diagnosis is not and can not always be made. If the operation is frankly exploratory it is obvious that some incision other than the McBurney is often employed.

In this report the Survey Committee* wishes to present our experience in studying the appendicitis cases of the past 12 years. We note the increasing use of the McBurney incision and expect its use in a growing percentage of cases in the future with more accurate preoperative diagnoses being made.

LENGTH OF DISABILITY

The great advantage in the use of the McBurney incision is the shortened convalescence of the patient. Some of the surgeons of our Committee allow a man who has been operated upon and the McBurney incision used, to return to heavy labor in four weeks. If some other incision has been used his convalescence is lengthened to a period of six weeks to allow firm healing of the abdominal wall. In these days of rapid production there is definite loss in man hours of work if the latter circumstance occurs.

We made no special note of morbidity in this study. In the first place, the principles of the above paragraph are well known. Second, the study of thousands of charts was a great labor and would have been greater if we had tried to estimate the length of hospital stay, not alone from the operation but from any complications

that developed or from any concurrent diseases. Further, we had no way of knowing how soon the patient was back at productive work after he left the hospital. Finally, surgeons vary greatly in the length of time they keep their patients in the hospital after an appendicitis operation.

In summary, the great advantage in the use of the McBurney incision is in the decreased morbidity of the patient. Those having had this incision can be discharged from the hospital several days earlier and can return to work some weeks sooner than those in whom other incisions have been used. The effect of the productiveness of the patient and the crowding of hospitals is obvious.

DEFINITION

In this study the McBurney incision has been considered as such only when the true "grid-iron" incision has been performed. The operation described by McBurney is as follows: An oblique incision through the skin and subcutaneous tissue is made at McBurney's point one and one-half inches in from the anterior superior spine of the ilium on a line joining it and the umbilicus. The aponeurosis of the external oblique muscle is split in the direction of its fibers, after which the internal oblique and transversalis muscles, whose fibers for all practical purposes run in the same plane, are opened by blunt dissection in the direction of their fibers. Care is exercised at this point to avoid damage to the fibers of the eleventh and twelfth intercostal nerves. The transversalis fascia and peritoneum are then picked up and opened.

All other incisions, midline, right rectus, right pararectus and Battles have been classed together as "other incisions" in this report.

MORTALITY

The McBurney incision, affording a more lateral exposure of the peritoneal cavity with a minimum of peritoneal contamination, should in late cases have an advantage over other types of incisions and should be reflected by decreased mortality.

As yet we do not have the collected data of the relationship between type of incision and mortality for the first 10 years this survey covers. We hope eventually to secure assistance to enable us to publish all details.

*Other members of the Committee are Drs. D. C. Darrah, R. M. Hosler, H. H. Pevaroff, J. H. Lazzari, C. W. Rotter, S. J. Restifo, H. R. Hathaway, W. A. Boukalik, John Kelker, John Renshaw, A. F. Sydow, B. B. Larsen, J. M. Rossen, John Budd, S. L. Feldman, R. J. McNamee, P. L. Suhay, Geo. Crile, Jr., Fred Kelly.

This Survey was sponsored by the Cleveland Academy of Medicine and the Cleveland Foundation.

We do have these figures for 1940 and 1941 however, and they follow:

TYPE OF INCISION AND MORTALITY

Year	No. of Cases (McBurney)	Deaths	Mort. rate (percent)	No. of Cases ("other")	Deaths	Mort. rate (percent)
1940	1122	27	2.4	557	18	3.2
1941	1284	27	2.1	612	26	4.2
Total	2406	54	2.24	1169	44	3.76

Hence, deaths in the group in which "other" incisions are used are about 70 per cent more numerous than in the McBurney group. After discounting extraordinary possible factors, it seems definite to us that the use of the McBurney incision is an important aid in lowering mortality.

THE INCREASING USE OF THE MCBURNEY INCISION

In our previous reports we have stated our great satisfaction in seeing the death rate from appendicitis of the types reported, decline from 6.8 per cent in 1930 to 2.8 per cent in 1941.

At the same time the use of the McBurney incision has gradually increased:

USE OF MCBURNEY INCISION BY YEARS

Year	Total No. Cases	McBurney Incision Used In	Proportion (In Per Cent)
1930	1352	680	50.3
1931	1360	726	53.4
1932	1351	718	53.1
1933	1364	817	59.9
1934	1550	941	60.7
1935	1506	954	63.3
1936	1607	1024	63.7
1937	1731	1103	63.7
1938	1703	1071	62.9
1939	1758	1108	63.2
1940	1698	1122	66.1
1941	1918	1284	66.9

Many factors have aided our mortality decrease but we believe that the increasing use of the McBurney incision has played some part.

SUMMARY

We herewith report the results of study of types of incision in appendicitis, from the Cleveland Appendicitis Survey.

1. In 1940 and 1941 the use of "other" types of incision was accompanied by about 70 per cent greater mortality than when the McBurney incision was used.

2. The use of the McBurney incision has gradually increased from about one-half (in 1930) to about two-thirds (in 1941) of the cases operated upon. We believe that this has played some part in lowering our appendicitis mortality.

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Toxic Manifestations of Sulfonamide Therapy

A word about wounds: Among the wounded evacuated from Dunkirk one group had received sulfanilamide in varying doses. The contrast between these (infection was absent or minimal) and the untreated group (found to be grossly infected) was described as "astounding." The Pearl Harbor experience was even more convincing. Verbal and written reports from surgeons who were on duty during that incident describe the almost complete absence of suppuration, the absence of deaths from gas gangrene, the low operative mortality (less than 4 per cent), and the excellence of late results—all of these things being due in large part to the local use of sulfonamides. One Naval surgeon has personally told me of lay assistants who went about ladling sulfonamide powder with a spoon into infected wounds. Some of these wounded did not reach the surgeon's hands for 72 hours after injury and yet there was an almost complete absence of suppuration. You will notice the total deaths were 114,000 in the American Army resulting from disease, about half of them from external causes; killed in action, 36,000, and deaths from battle injuries, 13,000, that is, died of wounds. Note that the diseases which caused death, aside from active combat, were meningococcal meningitis and pneumonia of both types. It shows that some of these patients didn't reach the surgeon's hands until 72 hours after their injuries, and yet at that time there was an almost complete absence of suppuration.

Elsewhere the sulfonamides have already played an important role in the war. Reports from the armies of all combatants have been, without exception, enthusiastic. British, Russian, and German soldiers have carried the sulfonamides in their kits for ready application to their wounds. Consequently there has been a marked simplification of the surgical problem, a reduction of the periods of disability, and a lowering of the mortality. Our own soldiers will be as well or better prepared. Though chemotherapy can never replace good surgery, it has already proved to be an adjunct without equal. Its proper use will considerably reduce the mortality rate even in the presence of mediocre surgery. It is predicted that postoperative drainage of wounds may—like battleships—become obsolete.—J. Grant Irving, M.D., Hartford; Conn. S. M. Jour., Vol. VII, No. 1, January, 1943.

Postpartum Myocardosis

A Case Record Presenting Clinical Problems

RICHARD W. VILTER, M.D., and EDWARD E. McKEE, M.D.*

A thirty year old negress, was admitted to the Medical wards of the Cincinnati General Hospital on December 10, 1941, because of swelling of the feet and abdomen during the previous three weeks.

History: The patient had had six pregnancies since the age of fourteen. While she was pregnant in 1934, a positive blood Kahn was discovered. She received 10 intravenous injections of neoarsphenamine at that time but allowed anti-syphilitic treatment to lapse after she was delivered. Succeeding pregnancies terminated uneventfully until on November 13, 1941 she delivered twins spontaneously upon arrival at the hospital. Immediately postpartum, her blood pressure was 160/110 and urinalysis revealed +++ albumin. Treatment consisted of 5 cc. of 50 per cent solution of magnesium sulfate, intramuscularly, and 8 minims of veratrone subcutaneously. All manifestations of toxemia disappeared within 36 hours, but she described two episodes of paroxysmal dyspnea and palpitation during her third postpartum night. She was discharged on her sixth postpartum day normal except for an average pulse rate of 90.

She remained subjectively normal through her fifth postpartum week and made a routine visit to the out-patient clinic. On this visit sinus tachycardia, rate 120, was noted as the only gross abnormality. During her sixth postpartum week, her ankles and abdomen began to swell, and she experienced several more attacks of paroxysmal dyspnea, palpitation and dyspnea on climbing steps. A family physician prescribed digitalis and bed rest, but referred the patient to the hospital in the ninth postpartum week when it became evident that therapy at home was unsuccessful.

The past history revealed no significant deviation from the normal. Syphilis was apparent only on serological test, and there was no history of rheumatic fever, acute infection, nor gross inadequacy of diet.

Physical Examination: The patient was a thin, well-developed negress who was moderately orthopneic and cyanotic. Massive edema extended from her feet to the level of her umbilicus and involved her hands and forearms as well. Her temperature was 98°. Her skin was deeply pigmented especially on the elbows, hands, abdomen and breasts. The elbows were rough and scaly. Hyperkeratotic follicles were prominent on her nose and forehead. The arteries and veins in her ocular fundi were normal. The veins in her neck were distended, pulsating with each cardiac contraction. Fluid was present at both lung bases. The heart was greatly enlarged to the

right and to the left. Although the apical impulse was diffuse, it corresponded fairly well with the maximum left border of cardiac dullness in the sixth interspace in the mid-axillary line. The quality of the heart sounds was good at the apex but feeble at the base. A protodiastolic gallop was present and a blowing systolic murmur, heard over the entire precordium, was transmitted to the left axilla. The heart rate was 130; the blood pressure 120/100 in both arms; the pulse in the radial vessels was feeble; and pulsus alternans was present. The abdomen was distended with fluid and an enlarged tender liver was ballotable at the level of the umbilicus. The remainder of the physical examination was non-contributory.

Laboratory Data: The red blood cell count was 4,400,000; the white blood cell count was 6,400; the hemoglobin was 13.4 gms./100 cc.; the differential blood count was normal. The blood Wassermann was positive to the cholesterinized antigen and the blood Kahn was positive only with the sensitized antigen. Blood urea nitrogen was 21 mg. per cent. Except for a strongly positive test for albumin at all times, the urine examination was normal; the specific gravity varied between 1.010 and 1.028. The venous pressure, measured in the antecubital space equaled 18 cm. of water. The decholin circulation time was 50 seconds and the vital capacity, 1 liter. Repeated electrocardiograms showed sinus tachycardia and low voltage T waves in all leads. A teleoroentgenogram revealed a generally enlarged cardiac shadow with the greatest prominence in the region of the left ventricle. A shadow which was interpreted as pulmonary infiltrate or infarct occupied the right cardiophrenic angle.

Hospital course: The patient was put to bed on the usual cardiac regime; abdominal and thoracic paracenteses were performed. She received thiamin chloride intramuscularly 20 mg. twice daily for the first week because thiamin deficiency was suspected. Since she had had an excessive amount of digitalis while at home, the drug was not prescribed for the first nine hospital days. She was redigitalized during her second week in the hospital and was maintained thereafter on 0.1 gram of digitalis folium daily. Two cubic centimeters of mercupurin intravenously, repeated weekly, produced satisfactory diuresis and by the end of the third week the patient had lost 27 pounds of water. The improvement, however, was more apparent than real and could be attributed to the paracenteses and mercupurin. During her entire hospital course, her temperature was subnormal except, on one occasion, when a temperature of 100° was recorded. Her highest white blood cell count was 9200. The pulse remained between 110 and 120 and the blood pressure between 110/90 and 110/80. Gallop rhythm and pulsus alternans persisted, and frequent paroxysms of auricular fibrillation appeared. The heart size was unchanged.

After three months of hospitalization, the patient signed her release against the advice of the

This is the twelfth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati, College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

hospital staff. She remained in bed at home for eight days. Edema, ascites and orthopnea increased rapidly until the patient was returned to the hospital comatose and in shock. Despite emergency measures, she expired 18 hours after readmission.

Necropsy: The necropsy was performed on March 19, 1942, 14 hours postmortem, and revealed a well developed, well nourished, colored woman with pitting edema of both lower extremities to the level of the inguinal ligaments.

There were a few thin fibrous adhesions involving the lateral and posterior aspects of the right upper and both lower lobes of the lungs. The right pleural space contained approximately 1500 cc. of clear, straw colored fluid, and the left, 1000 cc. of similar fluid. The greatest transverse diameter of the pericardium was 16 cm. with the pericardial sac containing the usual amount of thin, straw colored fluid. The heart weighed 470 grams, and the epicardium was clear, smooth, and glistening. The tonus of the myocardium was poor, and on opening the heart, both the right and left ventricles were observed to be moderately dilated. The endocardium was clear, smooth, and glistening except for the presence of a grayish red thrombus enmeshed at the bases of the papillary muscles in the left ventricle. The myocardium was uniformly reddish brown and flabby. The coronary arteries were soft and patent with intimal surfaces smooth and glistening.

The peritoneal space contained approximately 500 cc. of clear, straw colored fluid. The abdominal organs were normally situated except that the inferior border of the liver extended 10 cm. below the xiphoid process and 8 cm. below the right costal margin in the right nipple line. The liver weighed 1460 grams. Glisson's capsule was clear, smooth, and glistening. The liver was cut with extreme ease revealing dark, reddish brown vascular markings surrounding dark tan islands of hepatic tissue. These "nutmeg" mottlings surrounded irregular, light yellow, friable areas which varied from 1 to 3 cm. in diameter and protruded above the remainder of the cut surfaces. The gall bladder contained approximately 5 cc. of brownish black viscid fluid, and its mucosa was light brown and velvety. The bile passages were patent.

Examination of the remaining viscera revealed definite evidences of passive congestion. In addition there was partial collapse of both lower lobes of the lungs as a result of the bilateral hydrothorax. The kidneys each weighed 235 grams. Their cut surfaces were dark reddish brown with some blurring of the cortical and pyramidal markings. The renal tissue was moderately swollen.

Microscopic examination of the heart revealed primarily wide-spread evidences of degeneration in varying degrees. The muscle bundles were swollen, fragmented, and irregularly stained with some loss of cross striations. The nuclei were swollen with square ends and revealed hyperchromatism, karyolysis, and karyorrhexis. In some areas there was a complete loss of cytoplasm with only pyknotic muscle nuclei remaining. The cellular response to this process was minimal, there being only a scattering of lymphocytes, and these lying chiefly between the muscle bundles just beneath the epicardium. The small arteries, veins and capillaries were moderately distended, and there were numerous minute hemorrhages scattered throughout the myocardium. Attached

to the endocardial surface of the left ventricle there was an early thrombus.

Sections of the liver revealed an extreme degree of chronic passive congestion. There was distension of the sinusoids and deposition of hemosiderin in the Küpper cells. The liver cords were atrophic with numerous large areas of necrosis, without inflammatory reaction, located around the central veins and fanning out into the mid-zones. In many areas there were both central and paracentral hemorrhage.

Examination of the microscopic sections from the other viscera revealed evidences of chronic passive congestion and toxic changes in the kidneys and suprarenals.

The final pathological diagnoses were: toxic myocardosis; early mural thrombus of the left ventricle; acute and chronic passive congestion of the liver with central zone necrosis; acute and chronic passive congestion of the viscera with bilateral hydrothorax, ascites, and peripheral edema; visceral evidences of toxicity.

DISCUSSION

Clinical investigation of this patient revealed none of the usual causes of congestive heart failure. There was no evidence of chronic valvular deformity, widespread arteriolar or coronary artery disease or myocardial infarction. The patient had none of the stigmata of acute rheumatic fever or of pericardial involvement.

Severe and widespread damage to the myocardium was indicated by massive cardiac enlargement, tachycardia, gallop rhythm and pulsus alternans, associated with feeble heart sounds, small pulse pressure and poor response to digitalis. Gummatous myocarditis was possible because of serological evidence of syphilis, but seemed unlikely because of the patient's record of antisyphilitic treatment and her six normal deliveries. Heart failure due to beriberi was considered because acute deficiency syndromes can be precipitated by the stress of numerous closely spaced pregnancies. The scaly pigmented lesion of chronic dermatitis on her elbows further suggested long standing nutritional deficiency. However, the unsuccessful therapeutic test with thiamin seemed to eliminate this diagnosis. Myocarditis, provoked by a recent acute infection, was ruled out by the negative history and by the lack of fever or leukocytosis.

The diagnosis, therefore, was restricted to those diseases of the myocardium whose etiology has not been determined. Fiedler's or isolated myocarditis, one of the better known types of this group, could not be ruled out. The clinicians were impressed, however, with the intimate relationship of the mildly toxic multiple pregnancy followed by rapidly developing heart failure in the patient. Therefore, the clinical impression before death was **post partum myocardosis**; a syndrome described in women during or shortly after the puerperium by Herrman and King, Gouley, McMillan and Bellet, and Hull and Hidden.

Pathologically, the diagnosis of Fiedler's myocarditis was ruled out by the absence of an inflammatory reaction. Generally, the processes observed in the group of cases listed as Fiedler's myocarditis have been inflammatory. As stated previously, the processes involved in this case were degenerative and of a type generally resulting from bacterial or non-bacterial toxins. Gouley, McMillan, and Bellet have described a group of seven cases which pathologically as well as clinically were very similar to the present case. Since the findings were compatible, the assumption was that this case represented an example of idiopathic myocardial degeneration associated with pregnancy, more commonly called postpartum myocarditis.

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Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

HEMORRHAGE FROM THE TRACHEA, BRONCHI, AND LUNGS, OF NONTUBERCULOUS ORIGIN

The spitting of blood is, of course, the presenting symptom in many and diverse conditions, so the need for painstaking detailed diagnostic study cannot be stressed too strongly. Short cuts and diagnoses by inference are to be condemned.

First, it is necessary to eliminate hematemeses. Useful here is the fact that blood from the lower respiratory tract is usually frothy, bright red in color, and apt to be mixed with bronchial secretion, while that from the stomach ordinarily is dark and often contains particles of food. It should also be noted that in cases of massive hemorrhage, pallor and loss of consciousness are likely to precede hematemeses, while in bronchopulmonary bleeding the blood almost invariably is expectorated before signs of actual blood loss appear.

Having by history and careful physical examination eliminated hematemeses, and obvious lesions of the larynx and nasal, oral or pharyngeal cavities, it must be assumed that the source of the blood is subglottic. It is important to note here that the authors believe that, "Far too much emphasis has been placed upon varicose veins at the base of the tongue as the hemor-

rhagic foci." (Not a single case was found in their series.)

Now having determined that the blood is coming from the lower respiratory tract, tuberculosis is the most likely diagnosis and to quote the authors, "The disease masquerades under many and varied guises." The inquiry must be considered incomplete until the tuberculous or nontuberculous nature of the underlying lesion has been established beyond question.

Tuberculosis being ruled out and cardiovascular disease, the blood dyscrasias, and acute lobar pneumonia eliminated, the search becomes more difficult.

Precise localization and identification of the causative lesion are dependent upon supplementary procedures. A comprehensive fluoroscopic and roentgenographic examination of the chest, including planigraphy and bronchography when indicated, is in order in every case of hemoptysis and bronchoscopy if necessary. As to the advisability of bronchoscoping a patient during or immediately following a hemorrhage, the authors believe that streaking of the sputum is not a contraindication, but that where frank hemoptysis occurs, bronchoscopy should not be performed until several days have elapsed since its cessation.

What now are the etiological probabilities? It is important to note as the authors point out that, "A great many patients admitted to the hospital with pulmonary bleeding are not seen by the bronchoscopist, the nature of the underlying disease being such that no indication for the direct inspection of the tracheobronchial tree is present. Included in this category are patients with cardiovascular lesions which lead to the production of chronic passive congestion or pulmonary infarction, patients with acute lobar pneumonia, and patients with blood dyscrasias. This group observed by the internist alone, represents a considerable number of patients with hemoptysis."

Noteworthy are the authors' comments that: (1) "Inflammatory processes are responsible for the hemorrhage in the majority of the cases, the most common etiological agent being bronchiectasis." (2) "Taking into consideration the fact that expectoration of blood is the initial manifestation of carcinoma of the bronchus in only a very small percentage of the patients, it is obvious that bronchoscopy must be done and the diagnosis made early in the course of the disease, before the symptoms have reached the stage of hemorrhage, if a successful therapeutic result is to be achieved in these cases." (3) "Fatal hemorrhage occurred in but three of the patients in the series, each of whom had a pulmonary abscess."—Chevalier L. Jackson and Sidney Diamond, *Amer. Review of Tuber.*, August, 1942.

The Importance of Zinc In Nutrition

JONATHAN FORMAN, M.D.

ZINC is essential to plant growth and plays an indispensable role in the metabolism of animals.

Zinc has been found to be effective in treating some physiological diseases but not much is known about its action in plants. As yet it has been found necessary to use zinc only on certain soils of the Gulf Coast States and California. Like copper, zinc accelerates plant growth under certain conditions. Because of the difficulties involved in its determination in the small amounts in which it is present in the soil, there is little information concerning its distribution in the soils. It is possible that the lack of productivity of some soil for certain crops as yet not understood may actually have their explanation in the absence of zinc alone, or more often perhaps, with other trace elements. There is increasing likelihood of a need for these trace minerals now that the virgin supplies which were contained in the soils have largely disappeared.

Zinc deficiency in fruit trees occurs in several parts of the United States and on vastly different types of soil. In some sandy soils, it seems that the zinc supply has become exhausted. In certain other soils there is a high capacity for zinc fixation so high that it causes an actual zinc deficiency. This zinc deficiency is responsible for "rosette" of apple and pecan trees; "little leaf" on stone fruits and grapes; "mottled leaf" of citrus and the "yellows" of walnuts. When zinc is lacking in the deciduous fruit trees, the foliage is small, narrow, more or less crinkled and chlorotic at the tips of the new growth; twigs slender, with very short internodes near the tips, producing rosette of leaves. Defoliation progresses from bases to tips of twigs.

Pecan trees are unusually susceptible and the story of how this deficiency was discovered is most interesting. Government experts decided to prevent, if possible, the infection which, although unknown, might be the cause of the rosettes. Iron sulphate solutions were poured around the roots of each tree in the experimental grove. Those trees which were treated first leafed out properly and bore excellent fruit. The rest of the grove was sicker than it had been the year before. The re-evaluation of their treatment brought out the fact that new galvanized iron tubs, buckets and dippers had been employed, and as long as there was a zinc coating for the iron solution to eat off, the pecan

trees were cured by the application of these extremely small doses of zinc.

Because of a lighter soil and more leaching rains, mineral deficiencies are much more widely distributed in Florida than in California or other citrus growing areas. The addition of zinc to the soil has become a regular practice, although mineral deficiencies are less common in California than in other citrus areas, zinc deficiency is widespread throughout the citrus orchards in California and elsewhere. In parts of both Florida and California, zinc deficiency has caused serious losses in the peach orchards by producing "little leaf". The disease is so called because of the characteristic rosettes of small leaves on the terminals of the affected tree. Such peaches as are produced are misshapen and worthless.

Salter has illustrated the extremely small amount of zinc that is necessary to serve as a catalyst. All that is needed to promote good growth on all the corn plants on one acre of corn producing at the rate of one hundred bushels to the acre is not quite as much zinc as will be found in the shell of one small dry-cell battery. "White mud" of corn plants is a type of chlorosis frequently found in fields under constant cultivation in central, north and northwest Florida. Zinc sulphate applied to corn growing in an acid mineral soil will arrest this chlorosis. Zinc deficiency in cotton fields is apparently not very common. When it does occur, it also produces a chlorosis of the cotton plant.

So far as is known, zinc deficiency symptoms have never been reported as occurring in potatoes growing in the field, nor has it been reported for field grown tobacco. There is, however, abundant literature on the experimental production of this deficiency in both of these plants.

Only a few cases of zinc deficiency have been reported in vegetable crops in the field. It has been observed in bean plants grown on the peat soils of Florida and in squashes, mustard and tomato plants in greenhouse culture.

Deficiency in zinc may be due to an exhaustion of the soil or to the formation of insoluble compounds of zinc. Sometimes the addition of lime in excessive amounts results in the precipitation of the zinc and renders it unavailable for the crops.

As physicians we are interested in whether our people can get enough zinc. It seems as long as they get a varied diet they stand little chance of being deficient. There is, however, a wide range

This is the fifth of a series of editorial summaries on the so-called trace elements in Conservation, Nutrition, and Human Health.

of variation in the zinc content of various plants and vegetables. In Beeson's Collection of Analytical Data the following variations are recorded: alfalfa leaves, eight-fold; apples, three-fold; beans, two-fold; beets, three-fold; cabbage, two-fold; clover, two-fold; oats straw, fifty-fold; redtop cut for hay, six-fold; spinach, two-fold; tomatoes, five-fold; wheat, five-fold.

Zinc is necessary to the health of experimental animals, and in all probability that of human beings. It is found in all the tissues and foodstuffs. The total zinc in the human body is 2.2 grams or about one-half the iron content. Under normal conditions about 15 milligrams of zinc are ingested daily. Zinc is excreted by the intestinal tract and by the kidneys. It is found in all the tissues but the thyroid, liver, and pancreas contain the largest amounts. Especially rich is the thyroid gland. The lungs, brain and testicles contain very little. The liver of an infant is particularly rich in zinc, containing about three times that of the adult. Since the liver of young animals contains a larger amount of zinc than the adult liver, calves' liver is therefore a better source of zinc than beef liver. Human milk and the milk of various animals contains a liberal quantity of zinc. The first flow of milk is unusually rich. Though zinc occurs rather widely in foods, the most dependable source is milk; and in the days ahead when many of us are going to have to give up milk for the duration, we must resort to liver as a source of this important mineral.

Zinc deficiency produced in the experimental animal results in a slowing of its growth, its hair or fur does not develop normally, and is quickly lost. In animals, too, the lack of zinc in the diet appears to interfere with the absorption of food through the intestinal wall. The animals soon become extremely thin and emaciated.

The presence of a small amount of zinc salts in hypophyseal extracts produces a marked augmentation in the ovarian weight increases in young female rats. It has also been shown that the augmentation with pregnancy-urine preparations can be increased when zinc salts are added to the hypophyseal synergist component. Until a better dietary procedure is developed, however, for the production of zinc deficiency, it will be impossible to make positive assertions regarding the importance of this element.

Zinc is present, as has been said, in relatively large amounts in the pancreas, in all commercial preparations of insulin, and in insulin crystals, no matter how they are prepared. But when more zinc is added to an insulin solution, the action of the insulin is delayed by the presence of the zinc salt. According to Wirtschafter, the zinc content of the pancreas in a diabetic is approximately only one-half of that of the pancreas of a non-diabetic. It has been suggested that

the zinc in the pancreas, therefore, may be concerned with the storage and utilization of the insulin. The rate of absorption of carbohydrates and protein from the gastrointestinal tract is influenced by the concentration of the zinc in the diet. In zinc-deficient rats, a distinct delay in the tissue interval for the absorption of both carbohydrates and proteins from the gastrointestinal tract has been demonstrated. This delay in the rate of absorption leads to a decrease in the efficiency of converting foodstuffs into body tissues. Interesting, too, is the relationship of Vitamin B₁ to the zinc metabolism. During avitaminosis, the zinc content of the blood, the toenails, the fingernails, and the skin are reduced to half their normal values. In natural foodstuffs there seems to be a correlation of the amount of zinc and Vitamin B₁.

So we may conclude that traces of zinc are essential and indispensable to the growth of plants and animals; that with the loss of milk in our diet during the coming war torn days, it would be an excellent precaution to give some thought to our own zinc supply. In peace time and wherever possible until more is known concerning the human needs for zinc, it would be well to drink a quart of milk each day and to eat liver once or twice a week, to supply this mineral.

Tularemia

Recent studies by Dr. Green indicate that making the hunting season for rabbits coincide with the period of hibernation of the principal insect vectors should materially reduce the incidence of the disease in humans. This period has not been definitely determined for Indiana, but it is probably well advanced by the middle of December.

Community education in essential hygiene is desirable. Market inspection is not considered to be a practical procedure of control. Legislation prohibiting the interstate shipments of wild rabbits and also repeal of the game laws protecting rabbits have been advocated by some. However, these procedures are vigorously opposed by most sportsmen.

Although quarantine is not indicated, all cases should be promptly reported. Theoretically, the nurse should disinfect sputum, conjunctival secretion, urine, feces, and the dressing from abscesses, but no case has been traced to these sources. J. W. Jackson, M.D., Indianapolis; Jour. Ind. S. M. A., Vol. 35, No. 12, December, 1942.

"Tuberculosis is the captain of the men of death."—John Bunyan.

* * *

No man is a good physician who has never been sick.—Arabian Proverb.

Current Research In Allergy

JOHN H. MITCHELL, M.D., Columbus, Ohio

THE meeting of the Society for the Study of Asthma and Allied Conditions held in New York on December 5th is probably the last meeting of any of the groups in allergy which will be devoted to the report of research. Investigative work is out for the duration.

At this meeting nine short papers were read and discussed. Matthew Brunner demonstrated naturally and artificially induced atopic allergy to *Ascaris* Antigen in dogs. Positive skin reactions were obtained in both groups of animals and severe constitutional reactions were noted in a few of the naturally sensitive dogs following small test doses of the worm extract. This report leads to some interesting speculations and revives our interest in *Ascaris* sensitizations.

The addition of a 5 per cent glycerin to the epinephrine hydrochloride, 1-100 was proposed by Stephen D. Lockley. His experience indicated that less dryness of the throat resulted when this solution was used in severe asthma. In the treatment of such cases he also connected the nebulizer to a small tank of oxygen, thus relieving the patient of the effort that is necessary when hand bulb is used.

In a well controlled series, Abraham Colmes observed that hay fever cases adequately treated before the onset of the season did just as well if the treatment was discontinued during the season as did those cases treated with weekly or bi-weekly injections during the season. This is an extremely important observation. The busy physician can now spend his time on those patients who present themselves with symptoms after the season begins.

Mary Loveless demonstrated as in her previous studies that the development of inhibiting antibody in treating ragweed sensitive cases can be correlated with the clinical improvement of the patient. By omitting treatment she allowed the titre of the inhibiting antibody to drop to low levels and then the patient's symptoms returned. If, however, the specific ragweed therapy was again instituted the following season the antibody titre increased promptly, usually to a higher level, and with a much smaller total pollen dosage than that required during the first year of treatment. Thus it appears that the titre of the inhibiting antibody determines at least relatively the degree of clinical improvement that the patient will receive. Dr. Loveless has shown previously that in treated pa-

tients the skin and conjunctival reactions diminish as the inhibiting antibody level rises.

Milton B. Cohen and Harold J. Friedman, both of Cleveland, were the only Ohio men appearing on this program of the "Eastern Society". They made a preliminary report on their studies with fractions of ragweed pollen extract obtained by various physical and chemical methods of separation. They demonstrated that there were several different reagins in ragweed pollen, one specific for a globulin fraction which had not previously been considered active.

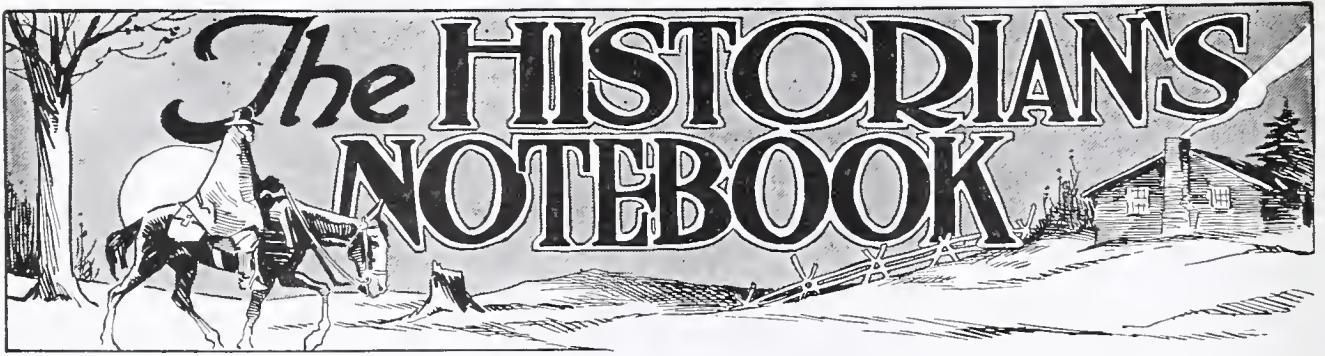
Irreversible, vascular and cellular changes occurring in allergic individuals were demonstrated by Joseph Harkavy. Such profound changes in structure frequently result in death, even though many of these cases were found sensitive to external factors.

An improved gelatin pollen extract was reported by A. M. Fuchs and M. B. Strauss. By autoclaving the gelatin it was found that it became less viscous upon cooling and did not require reheating to allow it to pass through the ordinary hypodermic needle. For those who prefer "slowly absorbing" extracts this preparation will be preferable to the thick gelatin solution previously available.

In his presidential address Louis Taft made a plea for standardization of extracts and more particularly for an agreement among allergists as to what should constitute the minimum number of test substances to be applied. He decried the practice of giving patients and their referring physicians a formidable list of substances tested for without a proper explanation as to the relative clinical significance of each positive skin reaction. Some of these reactions indicate merely an immunological sensitivity of the skin, and not a clinical sensitivity. Those substances which give positive skin reactions and which can be proved to be important clinically should be so indicated on the test sheets. This agrees with what almost all allergists believe, although many fail to practice. What the referring physician really wants to know, and what the patient really pays a fee for is the allergist's opinion as to what the real offerings are.

Chevalier L. Jackson, Jr., presented a series of cases who, because they wheezed, had been considered by their patients as instances of asthma. These were the ordinary cases of foreign bodies, broncho-stenosis, tuberculosis, and tumor. These were easily demonstrated upon bronchoscopic examination. He stressed the importance of X-ray pictures, fluoroscopy and bronchoscopy in all atypical cases of "asthma".

*This is an attempt to report on the meeting of a special national society.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., CINCINNATI, OHIO

“WHO knows whether the best of men be known, whether there be not more remarkable persons forgot than any that stand remembered in the known account of time?”

The early doctors of Ohio fought on two frontiers: riding the wilderness of a new state, they explored the mysteries of the human body. Among the settlements of a new nation there appeared doctors of genius, explorers who, without laboratories or instruments of precision or even any formal training, made great discoveries that helped usher in the age of our modern science. The doctor came with ax and gun, a sturdy frame, a brave heart, lots of good hard sense and a little learning. He brought a few crude drugs, roots and herbs, lots of calomel, a lancet, a few cupping glasses and possibly a jar of leeches. He assumed a dignity that the people took for erudition. Usually he had a pretentious vocabulary and an assumption of great wisdom. A womanly tenderness dispelled his rough and often profane language when attending to their needs. But doctors are only human, as a class perhaps more human than any other group of individuals, because from the type of their work they gain a remarkable insight into human nature and thus come to understand it well and respect it highly. The true physician is supremely happy in his work. The early frontier doctor was his own purveyor and dispenser of herbs, roots, leaves and balsams which he gathered in the woods.

Dr. R. Thompson in his report on Medical Literature of Ohio, printed in the Ohio State Medical Society Transactions of 1851, makes this report—“Ohio . . . untrammelled by the conventional usages of other states, or nations, tho’

their children are of us, and among us, the mind of Ohio is as free as the birds of her forests and her utterances of sentiment as unrestrained as their song.”—“In this noble young state, men think because they are free, and are free because they think.”

The writer of this article uses the following quotation as a reasonable explanation for going back over one hundred years in Medical Ohio’s history. The President of the Ohio State Medical Society meeting in Cleveland, 1852, in his valedictory address said, “one of the strangest features which mark this galloping age of ours is a want of due veneration for the past; a disposition to leap over all the barriers which age and experience have erected.” How true this statement is today.

It was in March, 1827, according to an article read by J. H. Pooley at the state meeting in 1877 when he was Professor of Surgery at Starling Medical College, that the first operation in the state for the removal of a tumor of the parotid gland was called to the general attention of Ohio doctors. The title of this article is, “Memoirs of William Maclay Awl, M.D.” who lived at Somerset, Ohio. The patient was a twelve year old girl and the tumor weighed two and one-half pounds involving the entire parotid gland and it necessitated the ligature of the carotid artery. This was the first carotid artery ligation west of the mountains and the fourth time in the United States. He showed a very accurate knowledge of the anatomy of the neck and a deliberation seldom displayed in one so young at any time. It is also interesting to note that Dr. Awl was one of the original members of the American Medical Association at its first

meeting in May, 1848, and was chosen one of the Vice Presidents.

"Notes of a Case of Empyema from Chronic Pleurisy in Which Operation Gave Relief," is recorded by the editor of the Western Journal of Medical Sciences, Daniel Drake. The patient became sick "with ague and fever" in June, 1826, with relapses for nine months. For the pleurisy he was bled four times and blistered many more. His disability became so great he could not walk across his room. In February, 1827, it was decided by Dr. Drake to operate upon him in Cincinnati; a broad lancet was introduced and considerable pus ensued. A canula was inserted for a short time and the patient continued to improve and finally went to New York one year after the onset of his illness.

Dr. Drake in the Western Journal of Medical Sciences, reports the case of a seventeen year old girl with a protruding eye producing a most unpleasant deformity. In a list of ten causes of exophthalmos given by Dr. Drake hyperthyroidism is not mentioned. The case of eye trouble referred to above began in April, 1829, but was not seen by the reporter of the case until May, 1830, when he operated upon the girl removing a considerable quantity of gelatinous fluid, part of which was opaque. Different parts of the sac were seized by the tenaculum and torn out. The sac was washed out with a small syringe full of tepid water. Because of postoperative nausea and headache and a rather tense pulse a total of 60 ounces of blood were removed in several bleedings. The next day the eye protruded more than before the operation, so a slice of beef was applied. A favorable suppuration at length ensued and twelve weeks later the eye was free from inflammation. This was the first case of an orbital tumor of the eye seen by Dr. Drake.

In writing of the Early Surgery of Ohio one must again refer to Dr. Aul and quote from his circular letter calling the first convention of doctors in Ohio for January 15, 1835, at Columbus, "To all Scientific Practitioners of Medicine and Surgery in the State of Ohio, the undersigned, uniting in sentiment and feeling with that portion of the Profession who view, with pain, the great depression of character, want of harmony and concentration of useful action, which unhappily prevail in the Medical Science—acknowledging, also, a proper responsibility for the advancement of correct principles, the promotion of public benevolence, and the common welfare of society—are induced most Respectfully to recommend and consent to support a call for the assemblage of a General Medical Convention, to be holden in the city of Columbus, on Monday, the 5th day of January, A.D., 1835." In the early days, the laws governing the practice of medicine in Ohio were few, very

incomplete and so poorly administered as to render them of little effect.

To have a "seat in this body of doctors" all that was necessary was that the applicant shall have been a regular student of medicine under the direction of a respectable and qualified physician, and that all disciples of the "Botanic" or "Thompsonian" system of practice be excluded from participation in the deliberations of the convention. This meeting was a revelation to all, for the previously isolated surgeons and physicians were brought together for friendly council with a community of interests.

In reading over the report of this convention it is very revealing to see what an influence and power Daniel Drake was in these early days of growing medicine and surgery. He was chairman of a committee that recommended a copy of the report of the committee on the necessity of Western Commercial Hospitals to be transmitted to the President of the United States of America, the Vice President, Members of Congress, and the Heads of Departments. Today one cannot think of modern surgery without the training of the students and later graduates in the subject of human anatomy as learned today by dissections of the human body. The first report from an Ohio Committee requesting legalizing the study of anatomy was made on January 7, 1835, by M. Z. Kreider, Chairman, and Drs. Johnson, Kirtland and Parsons were thereupon appointed to prepare and present such a memorial to the Legislature.

In these early days, over a century ago, blood-letting was very much in vogue and was practiced as carelessly as the giving of calomel. People were bled for anything and everything; bleeding was done for hemorrhages of the nose, stomach or bowels, or even as a prophylactic against such hemorrhages. The people of those days submitted to anything the doctor said as usually he was not called in until the patient's condition was desperate. Leeching, also, was popular at this time. A great editor once said, "When a thing is bad, it is mighty hard to right, when it is mighty bad it rights itself." This seems to be the principle on which the early surgeons of Ohio worked. The instrument of torture in daily use by the surgeons or physicians of so long ago are most horrifying to us today; the seton was either one of several threads introduced through a fold of skin to maintain an "issue." These were kept in place a long time. While the patient objected to the seton in the skin of the neck as producing an ugly scar, the doctors then thought it the only way of conquering a violent ophthalmia. Permanent issues were placed on the thigh or arm with a small tent of lint kept in the wound for several days to irritate it, after which a pea was introduced

to prevent healing. The actual cautery often took precedence as a most powerful assistant to surgery. The less the cautery was heated the more pain was caused with less of tissue destruction, so that a gray cautery was highly recommended.

The Second Session of the Medical Convention of Ohio in 1838 was held at Columbus with about 78 present. At this meeting Dr. Robert Thompson was requested to exhibit to the convention for their inspection the apparatus he had invented for the cure of prolapsus uteri.

Attending the third Session of the Medical Convention of Ohio in May, 1839, there were doctors from only 16 counties and there is but little reported of their discussions.

The 1842 Convention was held at Cincinnati in May. It then was resolved by Dr. William Wood of Hamilton County that "no practitioner of medicine who is at present the author or vendor of a secret or patent nostrum shall be considered a member of the convention." Dr. Daniel Drake in his definite and determined way read a paper on "Pathological Anatomy of Intermittent and Remittant Autumnal Fever." S. D. Gross's paper was on "Inquiry into the Nature and Treatment of Wounds of the Intestines", based on upward of 40 experiments.

Alexander Dunlap (1815-94), who was born in Brown County and graduated from Miami University in 1836, read medicine with his brother at Greenfield, Ohio, received his M.D. degree from the Cincinnati Medical College in 1839. In 1843 he performed his first ovariectomy and probably the first in the West with the exception of those of Ephraim McDowell. He was called a "consciousless butcher" for daring to operate for an ovarian disease.

At the 1845 meeting of the State Society at Columbus, Dr. R. D. Mussey presented a specimen of fracture of the neck of the femur with bony union within the capsular ligament.

The prolific Dr. Mussey's paper was upon "Ether and Chloroform" and that on "Case of Diseased Kidney" by Dr. McIlhenny of Green County, were the leading papers of the May, 1848, state meeting. Among the early users of chloroform as an anesthetic was Professor Richard Lee Howard, of Columbus, in January, 1849, about two months after its anesthetic properties were proclaimed by Dr. J. Y. Simpson, of Edinburgh, Scotland. This was an inestimable boon to the patient as it made possible that which had been impossible and its early use in Ohio did much to enable Ohio Surgeons to make the rapid progress to a fame they rightly deserved.

At the Ohio State Medical Convention at Columbus in June 1849, Dr. E. Carney gave two case reports: first, "Removal of Lower Portion

of Femur"; second, "Wound of the Rectum and Sloughing of Scrotal Sac". R. Thompson also reported on a case of "Resection of Left Superior Maxillary Bone", removed in July, 1848. He also talked on chloroform, gutta serena and collodion.

Report of a Committee consisting of E. H. Davis, J. P. Kirtland, R. D. Mussey, on Statistics of Calculus Disease was one of the outstanding donations to the meeting, held in Columbus in June, 1850. Dr. Carter's paper on "Parturition" was followed by that of Dr. P. J. Buckner on "Ovariectomy for Ovarian Cyst" made in January, 1850, and attention was called to the fact that he had made a successful operation for the same trouble in Cincinnati in April, 1848. At this same meeting N. W. Hubbard read a paper on the "Treatment of Irreducible Hernia by Truss" and R. Thompson of Columbus, contributed articles on "Fracture of Skull" and "Hydrocephalus Cured by Tapping", "Permanent Closure of Mouth Cured by Operation", and one on "Cataract".

The June, 1851, meeting of the State Society took place at Columbus. The Committee on Ovarian Diseases report was by P. J. Buckner, M.D., Chairman, of Cincinnati. In it he reported an "Anomalous Case of Abdominal Tumor" (ovarian) not curable by medical means. The total weight of the patient was 255 pounds, the tumor weighing 175 pounds, leaving 80 pounds as her net weight. The circumference around the abdomen was seven feet eight inches. Tapping was tried. This was then considered a dangerous operation as 20 per cent died with the first tapping, and it gave only temporary relief. About 65 per cent died within nine months of the first tapping. Against tapping it was claimed about one-half were well after ovariectomy. The figures given by Professor Atlee were to the effect that in 1845, of 101 ovariectomies, 63 recovered and 38 died or 25/59 per cent to 1 per cent; in 1850, 120 recovered and 59 died or 32/59 per cent to 1 per cent; in 1851 the mortality rate was down to 26½ per cent.

In the book written by Charles Cist on "Cincinnati in 1851", the Medical College of Ohio has several pages of reference beginning with its chartering in 1819. Quoting, "the cabinet belonging to the surgical department has been formed at great expense by the labor of more than 35 years. It contains a large number of very rare specimens, among which are sections of thigh bones that establish as a fact what European surgeons have long denied, viz: the possibility, by proper treatment, of a reunion, after a fracture of the neck, of these bones". Dr. R. D. Mussey was the professor of surgery at that time.

(To be continued)

Authentic Information for Physicians Regarding New U.S. Income Tax Law; Victory Tax and Miscellaneous Revenue Measures; File Your Return Promptly

THE Revenue Act of 1942, enacted by the U. S. Congress, October 21, 1942, requires that every citizen or resident of the United States, whose gross income for 1942 was \$500 or more, if single and \$1,200 or more, if married or head of family, must file an income tax return on or before March 15, 1943, in the office of the Collector of Internal Revenue of the district in which he resides.

Based on authoritative information obtained from Federal tax officials, *The Journal* presents herewith detailed provisions of the law especially affecting physicians, for the information of members of the Ohio State Medical Association who are required to file returns.

Individual problems should be discussed with competent legal or tax authorities or staff members in the district offices of the Collector of Internal Revenue. It is more important than ever before that every physician prepare his return carefully. Tax mistakes this year will be magnified to drastic proportions by rates that hit an all-time high.

MAJOR CHANGES IN ACT

Major changes in the Revenue Act of 1942 are:

1. The normal tax rate is increased from four to six per cent.
2. Surtax rates are substantially increased. The lowest rate is 13 per cent on the first dollar of surtax net income, and increases to an 82 per cent tax in the highest bracket.
3. The personal exemption of individuals has been reduced from \$750 to \$500 for a single person and from \$1,500 to \$1,200 for a married person or head of a family.
4. The credit for dependents has been reduced from \$400 to \$350.
5. The Victory Tax of 5 per cent is imposed on 1943 net income in excess of \$624 annually. Physicians in private practice will pay this particular tax when they file their 1943 return on March 15, 1944.

For detailed information on the Victory Tax, see page 156.

6. Extraordinary medical expenses exceeding 5 per cent of net income, including payments for health or accident insurance, are deductible. This deduction cannot exceed \$2,500 for a married person or \$1,250 for a single person.
7. Unpaid accounts appearing on the books of a taxpayer at the time of his death will not now be considered as part of the

income of the decedent for the year of his death, as has heretofore been the case, but will be taxable when paid, as a part of the income of the person who receives the money.

INFORMATION RETURNS

Every person making payments of salaries, wages, interest, rents, commissions, or other fixed or determinable income of \$500 or more during the calendar year 1942, to a single person, a partnership, or a fiduciary, or \$1,200 or more to a married person, is required to make a return on Forms 1096 and 1099 showing the amount of such payments and the name and address of each recipient. These forms may be obtained from any District Collector of Internal Revenue on Request.

Salaries of office assistants and other employees coming under this provision must be reported, also office rent, unless paid to a corporation.

Such returns covering the calendar year 1942 must be forwarded to the Commissioner of Internal Revenue, Sorting Section, Washington, D. C., in time to be received not later than February 15, 1943.

FORMS TO BE USED

Physicians and other professional men are required to use Form 1040 in submitting returns, regardless of the amount of net income. The sole exception is a physician, not in private practice, receiving a salary, whose gross income is less than \$3,000. In such cases, Form 1040A may be used. This optional return, permitted under Supplement T of the 1941 Act, was designed primarily for the purpose of simplifying the preparation of returns and the determination of the tax in the case of individuals whose gross income is \$3,000 or less and consists solely of salary or other compensation for services, and who have no deductions of any substantial amounts. The use of Form 1040 A would not be practicable for a physician, for in cases where there are substantial deductions, the tax will generally be lower if computed in the regular way.

PROCEDURE OUTLINED

Following is a detailed analysis of the procedure physicians should follow in filling out blanks for their 1942 income, and an example of how computations of the tax should be made:

Every physician whose gross income for 1942 was \$500 or more, if single, and \$1,200 or more, if married, must file an income tax return on or before March 15, 1943, at which time the tax is due and payable. A taxpayer may elect

to pay his tax quarterly, in which case the first installment of one-quarter of the tax would be due on March 15, and a quarterly installment every three months thereafter: June 15, September 15 and December 15.

REGARDING SOLDIERS

A physician who is on active military duty should file his income tax return in the office the Collector of Internal Revenue of the district in which he was a legal resident immediately prior to his entrance into active service. Compensation received for military service is subject to income tax.

Members of the armed forces who are on duty outside the continental limits of the United States are not required to file a return until the 15th day of the third month following their return to this country.

All groups, joint ventures and other organizations not incorporated must file returns as partnerships. Such returns must list the names and addresses of the individuals who would be entitled to share in the net income if distributed and the amount of the distributive share of each individual. The members of such groups must report their distributive shares as their own income.

In order to expedite checking of returns, and eliminate the possibility of unnecessary correspondence or investigations, physicians are urged to fill out all schedules in their returns.

GROSS INCOME

Gross income includes gains, profits and income derived from professional services, business activities, salaries, wages, sales, dealing in, or exchange of real or personal property, rents or royalties, dividends and interest, bonuses received as compensation, money collected on old accounts charged off in previous years as "bad debts," and funds received from all other sources.

Taxable income includes accrued value of U.S. Savings Bonds. The taxpayer may elect to report as income the yearly increase in value of such bonds or report the total increase in value in the year that the bonds are disposed of or mature.

PERSONAL EXEMPTIONS

If married and living with wife, or the head of a family, for the entire year, an exemption of \$1,200 is allowed; if single and not a head of a family, an exemption of \$500 is permitted, as credit against net income for the purposes of the normal tax and the surtax.

Credit of \$350 is permitted for each dependent under 18 years of age or each physically or mentally handicapped dependent regardless of age. The credit is not allowed in the case of a dependent minor over 18 years of age even if such minor is attending school.

The names and relationship of dependents for

whom a credit is taken must be shown on Schedule D, page 2, of the return.

In case of a change during the calendar year of the status of the physician in so far as it affects the personal exemption or credit for dependents, the personal exemption and credit should be apportioned in accordance with the number of months after such a change. Authority for prescribing rules and regulations for such apportionment is given to the Commissioner of Internal Revenue.

A husband and wife living together shall receive but one personal exemption. The amount of such personal exemption is, as previously stated \$1,200. If such husband and wife make separate returns, the personal exemption may be taken by either or divided between them.

ITEMS NOT REPORTABLE AS INCOME

The following items should not be included in gross income tax since they are exempt to Federal income tax:

Amounts received under a life insurance contract paid by reason of the death of the insured; whether in a single sum or in installments (but if such amounts are held by the insurer under an agreement to pay interest thereon, the interest payments shall be included in gross income).

Amounts received (other than amounts paid by reason of the death of the insured and interest payments on such amounts and other than amounts received as annuities) under a life insurance or endowment contract, but if such amounts (when added to amounts received before the taxable year under such contract) exceed the aggregate premiums or consideration paid (whether or not paid during the taxable year) then the excess shall be included in gross income. Amounts received as an annuity under an annuity or endowment contract shall be included in gross income; except that there shall be excluded from gross income the excess of the amount received in the taxable year over an amount equal to 3 per cent of the aggregate premiums or consideration paid for such annuity (whether or not paid during such year), until the aggregate amount excluded from gross income equals the aggregate premiums or consideration paid for such annuity.

Gifts (not made as a consideration for service rendered) and money and property acquired by bequest, devise, or inheritance (but the income derived from such property is taxable and must be reported).

Interest upon (1) the obligations of a State, Territory, or any political subdivisions thereof, or the District of Columbia, or United States possessions; or (2) obligations of the United States or instrumentalities thereof if issued prior to March 1, 1941, if the value thereof was not in excess of \$5,000.

DEDUCTIBLE ITEMS

In computing net income, the following items may be deducted by a physician from gross income:

Office Rental—If a physician pays rent to another person for office space, he may deduct such amount. If he rents a combined home and office, he may deduct that portion of the rent charged for the office. If he owns his own home and maintains an office in it, he can not claim deduction for office rent. However, he is entitled to claim depreciation on that portion of the property occupied as an office.

Automobile—The cost of repair and upkeep of an automobile, including gasoline and oil, used in professional visits may be deducted. That part of the salary paid to a chauffeur and attributable to time spent in driving his employer on professional calls, may be deducted. Sums spent for taxi hire, car fare, etc., while on professional calls, may be deducted.

Loss on an automobile used in professional business through depreciation may be deducted. The depreciation which should be deducted annually is figured by dividing the cost price of the machine by the number of years of its usefulness. If a physician has one automobile which is used exclusively in professional business, he may deduct the full depreciation each year. If the machine is used only partly in professional business the deductible depreciation should be computed on the basis of the amount of time the car is used for professional purposes. If a physician possesses two cars, each of which is used partly in professional business, the deductible depreciation on each car should be computed on the basis of the amount of time each car is used for professional purposes. In other words, if an automobile is used only partly for business purposes, depreciation may be deducted only on a proportionate part thereof, the amount of depreciation depending on the amount of time the machine is used in professional business.

A loss occasioned by damage to an automobile maintained either for business or pleasure, which is not due to the willful act or negligence of the taxpayer, is deductible loss in the computation of net income, provided the taxpayer has not been reimbursed for such loss by insurance.

It is suggested that physicians be prepared to substantiate claims for deductions from gross income for professional use of automobiles in case income tax officials should call on them for written records to show the mileage traveled by them in connection with professional practice, or to prove just what part of their automobile maintenance expense was a professional expense, and therefore deductible.

Professional Dues—Dues paid to professional associations to which, in the interest of his pro-

fession, the physician belongs, may be deducted. Expenses incurred in taking graduate courses have been held not to be deductible.

Traveling Expenses—Traveling expenses necessarily incurred by a physician on professional calls and in attending medical conventions for a professional purpose are deductible from gross income.

Salaries and Wages—Deductions are permitted for the salaries or wages of nurses, laboratory workers, technicians, assistants, stenographers, or other clerical workers in a physician's office so long as their duties are connected with professional work; also for wages paid maids, janitors, etc., for services rendered in connection with professional practice.

Medicines, Supplies, etc.—Cost of medicines used in the office to treat patients, medicine dispensed, bandages, laboratory materials, chemicals, and other supplies "consumed in the using" and necessary to operate the office may be deducted.

Equipment, Furniture, Library, etc.—Cost of surgical instruments and laboratory appliances of more or less permanent value may not be deducted but a percentage of the purchase price may be deducted annually under a depreciation account. The same rule applies to office furniture and books purchased for the physician's office library. If improvement to offset obsolescence and wear and tear or injury has been made and deduction for the cost claimed elsewhere in the return, claim should not be made for depreciation.

General Office Expenses—The cost of telephone, telegrams, heat, light, water, etc., used in professional service is deductible. Physicians who keep current magazines and newspapers in their waiting rooms for the benefit of their patients, may deduct this item as a business expense. The cost of professional journals for the physician's own use is also a deductible item.

Debts—If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debt because he is then only reporting as gross income those accounts which have proved to be good. Bad accounts have not been reported and are therefore not deductible.

If books are kept on an "Accrual Basis" (where expense is actually incurred and payable even though not yet paid, or income earned although not yet collected) it is permissible to charge off all debts which have been definitely ascertained to be worthless during the fiscal year covered by the report.

The physician using this latter system must be careful to include in gross income bad debts which have been charged off in previous years but collected during the calendar year for which the return is filed.

Taxes and Licenses—All state and county

taxes, except those assessed against local benefits of a kind tending to increase the value of the property assessed and those imposed upon the taxpayer upon his interest as shareholders of a corporation which are paid by the corporation without reimbursement from the taxpayer, are deductible.

Sales tax payments may be deducted. A reasonable allowance will be permitted in proportion to the physician's income. Should the claimed exemption appear too large, however, the burden of proof falls upon the taxpayer, and he may be called upon to produce purchase receipts to substantiate his claim. Sales tax coupons are not considered sufficient evidence.

making income tax returns. Such taxes are deductible on returns for the taxable year in which they are accrued or paid, depending upon the method of accounting employed by the taxpayer. However, Federal Old Age Benefits payroll deductions from employes' wages are not proper deductions from individual Federal income tax returns. The reason for this latter distinction is that the individual employee at a future date will have returned to him in the form of pensions the money which is deducted from his current wages.

Interest—Amounts paid out as interest upon indebtedness (except interest paid to carry non-taxable securities) are deductible.

SURTAX RATES	
"If the surtax net income is:	
Not over \$2,000	
Over \$ 2,000 but not over \$ 4,000	
Over 4,000 but not over 6,000	
Over 6,000 but not over 8,000	
Over 8,000 but not over 10,000	
Over 10,000 but not over 12,000	
Over 12,000 but not over 14,000	
Over 14,000 but not over 16,000	
Over 16,000 but not over 18,000	
Over 18,000 but not over 20,000	
Over 20,000 but not over 22,000	
Over 22,000 but not over 26,000	
Over 26,000 but not over 32,000	
Over 32,000 but not over 38,000	
Over 38,000 but not over 44,000	
Over 44,000 but not over 50,000	
Over 50,000 but not over 60,000	
Over 60,000 but not over 70,000	
Over 70,000 but not over 80,000	
Over 80,000 but not over 90,000	
Over 90,000 but not over 100,000	
Over 100,000 but not over 150,000	
Over 150,000 but not over 200,000	
Over 200,000	
The surtax shall be:	
13% of the surtax net income.	
\$ 260, plus 16% of excess over \$ 2,000.	
580, plus 20% of excess over 4,000.	
980, plus 24% of excess over 6,000.	
1,460, plus 28% of excess over 8,000.	
2,020, plus 32% of excess over 10,000.	
2,660, plus 36% of excess over 12,000.	
3,380, plus 40% of excess over 14,000.	
4,180, plus 43% of excess over 16,000.	
5,040, plus 46% of excess over 18,000.	
5,960, plus 49% of excess over 20,000.	
6,940, plus 52% of excess over 22,000.	
9,020, plus 55% of excess over 26,000.	
12,320, plus 58% of excess over 32,000.	
15,800, plus 61% of excess over 38,000.	
19,460, plus 63% of excess over 44,000.	
23,240, plus 66% of excess over 50,000.	
29,840, plus 69% of excess over 60,000.	
36,740, plus 72% of excess over 70,000.	
43,940, plus 75% of excess over 80,000.	
51,440, plus 77% of excess over 90,000.	
59,140, plus 79% of excess over 100,000.	
98,640, plus 81% of excess over 150,000.	
139,140, plus 82% of excess over 200,000."	

The Ohio Gasoline Tax is deductible to the extent of three cents per gallon. If a physician has already deducted the cost of gasoline used in making professional calls as automobile expense, he can not of course make an additional deduction of three cents per gallon for gasoline so used. However, he may deduct that amount on gasoline purchased for other than professional use.

All license fees which the physician is required to pay are deductible, including the narcotic tax, automobile license tag fee, local occupational taxes, taxes on club dues, etc.

All Federal taxes except income, war-profit and excess-profit taxes are deductible, including Federal excise taxes collected direct from the consumer or purchaser.

Federal Old Age Benefits and Unemployment Compensation taxes paid by employers under the Social Security Act are proper deductions in

Losses by Fire and Theft—Loss or damage to a physician's equipment by fire, theft, or other cause, not compensable by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent to which it has not been made good by repair and the cost of the repair is claimed as a deduction.

Insurance Premiums—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries to a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Premiums paid on life insurance are not deductible.

Legal Expenses—Expenses incurred in the defense of a suit for alleged malpractice is deductible as business expense. However, expense incurred in the defense of a criminal action is **not** deductible.

Contributions, Gifts, etc.—It is permissible to deduct from gross income contributions made to charitable, religious, educational and scientific organizations, no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation, to an aggregate amount not to exceed 15 per cent of the net income, exclusive of such contributions.

Medical and Dental Expenses—A new provision in the 1942 Revenue Act permits deductions for extraordinary medical-dental expenses paid during the year, not compensated for by insurance or otherwise, which are in excess of 5 per cent of the taxpayers net income. In the case of a husband and wife the expenses are not deductible unless they exceed 5 per cent of the aggregate net income of both. The maximum allowable deduction on a joint return or the return of a head of a family is \$2,500, and for a single person, \$1,250. The term "medical care" as used in the act, is broadly defined to "include amounts paid for the diagnosis, cure, mitigation, treatment, or prevention of disease, or for the purpose of affecting any structure or function of the body (including amounts paid for accident or health insurance)".

EARNED INCOME CREDIT

For purposes of the normal tax, an earned income credit is allowed by means of a deduction from a net income of an amount equal to 10 per cent of the earned net income. If the taxpayer's net income is not more than \$3,000, his entire net income is considered to be earned net income. If his net income is more than \$3,000, his earned net income shall not be considered less than \$3,000 but in no case shall the earned net income be considered more than \$14,000.

NORMAL TAX RATE

The normal tax rate on 1942 income is six per cent on all net income in excess of exemptions and credits.

SURTAX RATES

In addition to the normal tax, a surtax is levied on surtax net income, that is, net income less the personal exemption and the credit for dependents, as shown in accompanying box.

HOW COMPUTATIONS ARE MADE

An example of how computations are made is given here for the information of physicians. The figures used in the following tabulations may appear out of proportion to the actual income of the average physician during 1942. However, they are used merely to illustrate how the normal and surtax rates should be applied.

The following computation is based on a hypothetical case of a married physician, with no dependents, who had a gross income of \$15,000 during 1942:

Gross Income

Income from professional services	\$12,000.00
Income from other sources:	
Rent from apartment	\$1,500.00
Taxable interest, dividends	1,500.00
	<hr/>
	\$3,000.00 3,000.00
	<hr/>
Gross income	\$15,000.00

Deductions

Depreciation of office furniture, etc.	\$ 400.00
Salaries and wages for office help	1,500.00
Telephone, heat, light, etc.	400.00
Automobile cost and depreciation	800.00
Drugs, bandages, medicines, etc.	2,500.00
Traveling expenses to medical meetings	300.00
Office rent	800.00
Dues, liability insurance	200.00
Miscellaneous expense	100.00
	<hr/>
Business expenses	\$7,000.00
State sales tax	75.00
Old Age benefit tax	15.00
Gasoline tax	10.00
Taxes on apartment	400.00
Interest on mortgage, overhead, etc.	300.00
	<hr/>

Total deductible expenses\$ 7,800.00

Net income (gross income, less deductible expenses)\$ 7,200.00

Computations

Surtax net income (net income less personal exemption \$7,200.00 less \$1,200.00)	\$ 6,000.00
Earned net income (earned income less business expenses, \$12,000.00 less \$7,000.00)	\$ 5,000.00
Earned income credit (10% of earned net income, \$5,000.00)	\$ 500.00
Income subject to normal tax (net income less personal exemptions and earned income credit; \$7,200.00 less \$1,200.00 and \$500.00)	\$ 5,500.00
Normal tax (6% of \$5,500.00)	\$ 330.00
Income subject to surtax	\$ 6,000.00
Surtax (\$580.00 plus \$400.00—20% of \$2,000.00)	\$ 980.00
	<hr/>

Total tax (normal tax plus surtax)\$ 1,310.00

If the tax on the above return had been computed on the basis of the personal exemptions and tax rates in effect a year ago, the total tax would have been \$729.00. Two years ago the tax would have been \$259.60.

EXTENSION OF TIME FOR FILING RETURNS

Extensions of time for filing income tax returns will be granted only in extraordinary cases. Application for extensions of time should be addressed to the collector for the district in which the physician files his return, and must contain a full recital of the causes for the delay. Except in the cases of taxpayers who are abroad, no extension for filing income tax returns may be granted for more than six months.

OHIO'S REVENUE DISTRICTS

Internal revenue districts of Ohio, together with the name and address of the collector, and the counties comprising each district, follow:

For the Columbus District (Ohio 11th) Collector of Internal Revenue Harry F. Busey, Federal Building, Water and Gay Sts., Columbus, comprising the following counties:

Adams, Athens, Coshocton, Delaware, Fairfield, Franklin, Gallia, Guernsey, Hocking, Jackson, Knox, Lawrence, Licking, Madison, Marion, Meigs, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Union, Vinton and Washington.

For the Cleveland District (Ohio 18th) Collector of Internal Revenue Frank F. Gentsch, 262 Federal Building, Cleveland; comprising the following counties:

Ashland, Ashtabula, Belmont, Carroll, Columbiana, Cuyahoga, Geauga, Harrison, Holmes, Jefferson, Lake, Lorain, Mahoning, Medina, Monroe, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas and Wayne.

For the Cincinnati District (Ohio 1st) Acting Collector of Internal Revenue, Customs Building, Cincinnati; comprising the following counties:

Brown, Butler, Clark, Clermont, Clinton, Fayette, Greene, Hamilton, Highland, Miami, Montgomery, Preble and Warren.

For the Toledo District (Ohio 10th) Collector of Internal Revenue Frazier Reams, Toledo; comprising the following counties:

Allen, Auglaize, Champaign, Crawford, Darke, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Logan, Lucas, Mercer, Ottawa, Paulding, Putnam, Sandusky, Seneca, Shelby, Van Wert, Williams, Wood and Wyandot.

The Internal Revenue Department is now establishing sub-offices of the various district offices in a number of the principal cities in Ohio. Notice of the opening of these offices will appear in local newspapers. Any physician required to make a return, but who fails to receive

an income tax blank, should apply for one at one of these sub-offices or at the office of the Collector of Internal Revenue for the district in which he legally resides.

HOW VICTORY TAX WILL AFFECT PHYSICIANS

In addition to an increased income tax, the Revenue Act of 1942 imposes a Victory Tax on individuals of 5 per cent of their net income in 1943 in excess of \$624. Since this new tax does not apply to 1942 incomes, physicians generally, whose income is from fees, will not have to compute the amount of the Victory Tax they must pay until their 1943 returns are filed on or before March 15, 1944. Physicians who are in salaried positions will find the Victory Tax deducted from their salary checks during 1943.

If a physician, on or after January 1, 1943, employs any person (domestic service in a private home, agricultural and casual labor excluded) and pays such a person a wage in excess of \$12 per week or \$624 per year, he must withhold the 5 per cent Victory Tax from that wage and transmit it to the government at quarterly intervals, beginning April 30, 1943.

Every employer withholding the Victory Tax must furnish to each employee on or before January 31, 1944, or if the employment is terminated before the close of 1943, on the day on which the last payment of wages is made, or not later than 30 days thereafter, a written statement showing the period covered by the statement, the wages paid to such employee during such period, and the amount of the tax withheld and collected. Duplicate copies of such statements must be transmitted to the Commissioner of Internal Revenue along with the final report made by the employer for the calendar year.

POSTWAR CREDIT OR REFUND OF VICTORY TAX

As soon as practicable after the date of cessation of hostilities in the present war, the following amounts of victory tax paid for each taxable year beginning after Dec. 31, 1942 will be credited against any income tax or installment thereof then due from the taxpayer and any balance will be refunded immediately to the taxpayer:

1. In the case of a single person or married person not living with husband or wife, 25 per cent of the victory tax or \$500, whichever is the lesser.

2. In the case of the head of a family, 40 per cent of the victory tax or \$1,000, whichever is the lesser. In the case of a married person living with husband or wife where separate returns are filed by each spouse, 40 per cent of the victory tax or \$500, whichever is the lesser. In the case of a married person living with hus-

band or wife where a separate return is filed by one spouse and no return is filed by the other spouse, or in case of a husband and wife filing a joint return, only one such credit will be allowed and such credit may not exceed 40 per cent of the victory tax or \$1,000, whichever is the lesser.

3. For each dependent, excluding as a dependent, in the case of the head of a family, one who would be excluded as a dependent for income tax purposes, 2 per cent or \$100, whichever is the lesser.

The law contains provisions under which a taxpayer may, prior to the cessation of hostilities, take advantage of his postwar credit or refund. To the extent of that credit or refund, the taxpayer may reduce the victory tax by deducting amounts paid during the year as premiums on life insurance in force on Sept. 1, 1942, certain reductions of debts and certain investments in obligations of the United States. At the end of 1943 and of each year thereafter in which the victory tax is imposed the taxpayer may, with respect to that tax, do one of two things: (1) He may pay the victory tax in full and wait until the cessation of hostilities to claim his postwar refund or credit, or (2) he may at the time the victory tax is payable reduce the amount of the tax by deducting expenditures for purposes above described in an amount equal to the postwar refund or credit to which he would be entitled after the cessation of hostilities.

OHIO PERSONAL PROPERTY TAX

Returns under the Ohio Personal Property Tax Law must be made between February 15 and March 31, annually.

All tangible and intangible personal property (not real property) in possession of a physician on January 1, 1943, which is subject to taxation under the Ohio law, should be listed on the return which should be filed with the county auditor between those dates. Form 910 is used by individuals and partnerships, and Form 930 by corporations.

Such returns should be made in duplicate. The so-called intangible tax statutes are intricate and complicated so each physician having taxable personal property for listing should obtain competent advice in case of doubt as to the meaning of any of the provisions of the law.

One of the complicated provisions of the tax law is that involving the listing of credits which are taxable at 3 mills on the dollar and which involves the computation of accounts receivable.

As defined in Section 5327 of the law, credits "mean the excess of the sum of all current accounts receivable and prepaid items used in business when added together estimating every such account and item at its true value in money, over and above the sum of current accounts payable

of the business, other than taxes and assessments.

The same section states that "current accounts include items receivable or payable on demand or within one year from the date of inception, however evidenced".

As the first step in making his return under the section relating to credits, a physician should estimate by his best judgment the Actual Value of his current accounts receivable—the amount that probably can be collected.

In listing his current accounts receivable, the physician should note after each account what he considers the value of the account. If he believes the account can be collected in full, it should be listed at its full face value. Otherwise, it should be listed at 75%, 50%, 25%, 10%, etc., of its full face value, or of "no value" in case that is considered the "actual value" of the account. The total of these estimates is the total to be entered as "current accounts receivable" and used in computing credits.

This procedure permits the physician to charge off bad debts since in his 1942 return he would be permitted to return as of "no value" accounts receivable which he listed in 1941 but no part of which was collected during the past year. Moreover, it permits a physician to depreciate the actual value of accounts returned in 1941 but which have decreased in actual value during the past year.

OLD AGE BENEFITS TAX

The Old Age Benefits Tax is payable by every physician who employs one or more persons in his office. It amounts to one per cent on the first \$3,000 of each employee's wage paid by the employer and a like amount deducted from the wages of each employee. The tax return and informational return, combined in one report, Form SS-1-A, is to be filed quarterly. The tax must be paid and the return filed prior to April 30, 1943, for the months of January, February and March, 1943, in the office of the District Collector of Internal Revenue.

UNEMPLOYMENT COMPENSATION TAX

Under the Ohio Unemployment Compensation Law, physicians who employ three or more persons must file an "Employer's Contribution, Form UCO-2-e, Report," quarterly with the Ohio Bureau of Unemployment Compensation, Columbus. Report for the period of October 1 to December 31, 1942, was due January 31, 1943. The tax, which must accompany the return, amounts to 2.7 per cent of the quarterly payroll, unless qualified for a modified rating.

Employers of eight or more persons, under the Federal Unemployment Compensation Law, must

have filed with the District Collector of Internal Revenue on Form No. 940, prior to January 31, 1943, a report of wages paid during 1942. The tax is 3 per cent, less a credit of the amount paid to the Ohio Bureau of Unemployment Compensation. In other words, 90 per cent of the Unemployment Compensation Tax of employers of eight or more persons will be paid to the State and 10 per cent to the Federal Government.

OHIO USE TAX

The Ohio Use Tax Law, passed in 1936 supplementing the Retail Sales Tax Law, imposes a tax on the same basis as the sales tax, on purchases made outside the state. Its purpose is to protect Ohio merchants from discrimination. Many out-of-state firms have made arrangements with the State Tax Commission to add the amount of the tax to invoices covering purchases by Ohio consumers, collecting the tax and paying it directly to the Commission. However, if a physician purchases drugs or supplies from an out-of-state firm which has not made such an arrangement with the Tax Commission, he is required to report such purchases to the Tax Commission and pay the tax. Returns must be filed with the Commission by April 15, 1943, for purchases during that period January 1 to March 31, 1943, and quarterly thereafter.

Dr. R. C. Baker Named Acting Dean Of Medical School at Ohio State University

Rollo C. Baker, Ph.D., secretary of the Ohio State University College of Medicine for the last eight years and chairman of the department of anatomy, has been named acting dean of the College of Medicine to fill the vacancy created by the death of Dr. Leslie L. Bigelow, according to an announcement by President Howard L. Bevis. The appointment is a temporary one during the absence of Dean Hardy A. Kemp, who is on military leave.

Dean Baker has been associated continuously with Ohio State University since he enrolled as a student with the exception of a short period in which he worked toward doctorate at the University of Chicago. In 1915 he was named graduate assistant and in 1918 he became instructor in anatomy. In 1921 he was appointed assistant professor, and since 1932 he has been full professor. He earned the degree of doctor of philosophy in anatomy at the University of Chicago in 1927.

A leader in research in anatomy, Dean Baker has written extensively about his investigations for scientific journals. He is a member of Sigma XI, honorary scientific fraternity, the American Association of Anatomists, Alpha Omega Alpha, honorary medical fraternity, and Phi Rho Sigma medical fraternity.

Fellowship Dues Must Be Paid To Continue as A.M.A. Fellow

There appears to be some confusion in the minds of some members, especially those in military service, about the difference between membership in the American Medical Association and Fellowship in the A. M. A.

When a physician becomes a member of his County Medical Society he becomes a member of the Ohio State Medical Association as soon as his State Association dues are received at the Columbus office from the Secretary-Treasurer of the County Medical Society. Immediately his name is certified to the American Medical Association Headquarters, Chicago, where he is entered on the membership rolls of the A. M. A. **There are no membership dues in the A. M. A.**—local and state dues covering A. M. A. membership.

However, Fellowship in the A. M. A. is something apart from membership. To become a Fellow of the A. M. A., and become eligible to participate in the scientific activities of the national organization and receive *The Journal of the A. M. A.*, a member must submit \$8.00 for Fellowship dues. This is handled directly by the A. M. A. office, Chicago.

Annual dues for members serving with the armed forces or other full-time Federal agencies for the duration have been waived by the Ohio State Medical Association.

There has been no waiver of Fellowship dues by the A. M. A. so a member in military or government service must pay annual Fellowship dues to the A. M. A. to continue as a Fellow of the national organization.

A.M.A. House of Delegates Scheduled To Meet in Chicago, June 7

The House of Delegates of the American Medical Association will convene in Chicago on June 7, 1943, officials of the association announced recently. This session will supplant the 94th annual meeting originally scheduled to be held at that time in San Francisco but cancelled because of transportation difficulties and war demands on the medical profession. Cancellation of the 1943 meeting is the third time this has taken place in the history of the A.M.A., the other two being in 1861 and 1862, during the Civil War.

New York Extends Invitation

An invitation to Ohio physicians to attend the annual meeting of the Medical Society of the State of New York, to be held in Buffalo, May 3-6, has been received from officials of the New York organization. The Hotel Statler in that city will be official headquarters.

Plans for 1943 Annual Meeting, March 30-31, Columbus, Are Being Completed; Program Built Around Medical and Health Questions Arising from the War

CIRCLE on your calendar the dates March 30 and 31—the dates for the 1943 Annual Meeting of the Ohio State Medical Association at the Neil House, Columbus.

Plans are shaping up rapidly for this streamlined Annual Meeting, the general theme of which will be **"Medicine on the Home Front"**. Complete details for the meeting will be published in the March issue of *The Ohio State Medical Journal* and in special announcements to County Societies and members to be issued at a later date.

The afternoon and evening of March 30—the first day of the Annual Meeting—will be devoted primarily to business matters—session of the House of Delegates and discussions of vital problems arising from the war.

On the morning of March 31, there will be a General Session, the theme of which will be **"Keeping Them Working"**, and the program will be devoted to industrial health. Guest speakers of national reputation are being secured to discuss health and medical problems pertaining to industry, such as how to reduce absenteeism among employes, the control of occupational diseases, the health of women in industry, organizing medical services in small plants, particularly, and kindred subjects.

The March 31 afternoon program will carry the theme, **"Keeping Them Healthy"**. It will cover subjects relating to the health of the civilian population generally under wartime conditions. Questions of immunization, diet, nutrition, etc., will be discussed.

The meeting will be in effect a **"War Conference"**. It will be of great importance. It will be curtailed in comparison to meetings of previous years (no exhibits or scientific section meetings) but it will be one of practical value to all physicians.

Plan now to attend and watch for more detailed information in the March issue of *The Journal*.

Interesting Data Found in Newest Survey on Incidence of Syphilis

Syphilis incidence in the entire male population of the United States between the ages of 21 and 35 is estimated to be 47.7 per 1000, according to reports of 1,895,778 serologic examinations of men of all races tested under provisions of the Selective Service Act. The reports were published in *The Journal of the American Medical Association* for Dec. 26.

In total incidence, Ohio ranks 23rd with a rate of 30.1 per 1000. The rate among white persons for Ohio is 21.9 per 1000, which puts the state 24th in this classification, while the rate among Ohio Negroes is 191.2 per 1000, which is 29th among the states. Ohio's total urban rate is 33.6 per 1000, and its rural total rate is 22.2 per 1000.

The nation's rates in the same classifications are: 17.4 per 1000 for white selectees and 252.3 per 1000 for Negroes; 43.8 per 1000 for selectees from rural areas, and 46.1 per 1000 for selectees from urban areas.

"Social Hygiene Day" on Feb. 3

With the slogan, "Social Hygiene Takes Battle Stations," as a keynote, annual national Social Hygiene Day will be celebrated Wednesday, Feb. 3, throughout the United States. Stressing the urgent wartime need for venereal disease control, various health and welfare groups under the leadership of the American Social Hygiene Association will launch the 1943 campaign against syphilis and gonorrhea.

Announce Merger of Drug Firms

Merger of two pharmaceutical firms, Alba Pharmaceutical Co. and Winthrop Chemical Co., Inc., was announced recently by James Hill, Jr., president of Sterling Drug, Inc., of which both firms are affiliates. Under the merger, the Winthrop company has taken over Alba's assets, property, trademarks, and good will. The Alba research and manufacturing facilities at Rensselaer, N.Y., will be consolidated with those of Winthrop, and Dr. J. Mark Hiebert, medical director of Alba, will become assistant to Dr. Theodore G. Klumpp, Winthrop president.

Reappraisal of Ohio Physicians To Classify Those Deemed Available for Military Service Is Begun; Rulings on Interns, Residents and Students Are Issued

REAPPRAISAL of the supply of physicians in all counties was being undertaken by the Ohio Procurement and Assignment Committee for Physicians as this issue of *The Journal* went to press.

The purpose of the reappraisal is two-fold: namely (1) To determine if there is a sufficient number of actively practicing physicians in all counties to meet local medical and health needs or where there is a shortage of medical personnel for civilian needs, and (2) to ascertain which communities can spare additional physicians for service with the armed forces as medical officers.

As soon as the reappraisal has been completed the committee will be in a position to initiate an active recruiting program through which Ohio will be able to provide new medical officers for the Army and Navy during 1943. It is likely that calls for applicants for commissions in the Army or Navy medical corps will be issued on a monthly basis, the total number to be requested being based to a large extent on the supply of physicians needed to meet civilian needs. Procedure for the recruiting of additional medical officers during 1943 will be announced as soon as complete details have been worked out by the Procurement and Assignment Service, Washington, in conjunction with officials of the War and Navy departments.

NUMBER NOW IN SERVICE

As of January 20, the total number of Ohio physicians officially listed by the Ohio State Medical Association as being in the armed forces or in full-time Federal government service for the duration was 2,378, broken down as follows: Army, 2,086; Navy, 260; other services, 32.

Many questions which have arisen with respect to the availability or essentiality of physicians, medical students, premedical students, and interns under the Selective Service Act were answered in an "Occupational Bulletin" (No. 41) issued by the National Headquarters, Selective Service System, Washington, under date of December 14, 1942, and effective until July 1, 1943, reading in part as follows:

OCCUPATIONAL DEFERMENTS

"1. Persons qualified

There are certain persons trained, qualified, or skilled in the practice of medicine, dentistry, veterinary medicine, and osteopathy, who, if engaged in the practice of their respective professions, are in a position to perform vital service in activities essential to war production and to

the support of the war effort, and in activities the maintenance of which is necessary to the health, safety, and welfare of the nation.

"2. Critical occupations

The War Manpower Commission has certified that in the practice of medicine, dentistry, veterinary medicine, and osteopathy, and in training and preparation therefor, there are critical occupations, which, for the proper discharge of the duties, require a high degree of training, qualification, or skill.

"3. Consideration of occupational classification

The War Manpower Commission has certified that there are serious shortages of persons trained, qualified, or skilled to engage in these critical occupations. Accordingly, careful consideration for occupational classifications should be given to all persons trained, qualified, or skilled in these critical occupations and engaged in activities essential to the health, safety, and welfare, necessary to war production and essential to the support of the war effort, and persons in training and preparation therefor.

"4. Students in preprofessional training

A registrant who is in training and preparation as a premedical, pre dental, preveterinarian, or preosteopathic student, pursuing courses in liberal arts or sciences in a recognized university or college, may be considered for occupational deferment after completion of his first academic year in such preprofessional course, and thereafter, if he is a full-time student in good standing, if he continues to maintain good standing in such course of study, and if it is certified by the institution that he is competent and that he gives promise of successful completion of such course of study and acquiring the necessary degree of training, qualification, or skill.

"5. Students in professional schools

A registrant who is in training and preparation as a medical, dental, veterinary, or osteopathic student, in a recognized medical school, dental school, school of veterinary medicine, or school of osteopathy, shall be considered for occupational classification during the period of such professional course, provided he is a full-time student in good standing, he continues to maintain good standing in such course of study, and if it is certified by the institution that he is competent and that he gives promise of the successful completion of such course of study and acquiring the necessary degree of training, qualification, or skill to become a recognized medical doctor, dentist, or doctor of veterinary medicine, or osteopath.

"6. Interns

A registrant who has completed his preprofessional and professional training and preparation as a medical doctor, dentist, or osteopath, and who is undertaking further studies in a hospital, institution, or dental clinic, giving a recognized internship, shall be considered for occu-

pational classification so long as he continues the internship, but for a period not to exceed one complete year.

"7. Opportunity to engage in profession

When a registrant has completed his training and preparation in a recognized college or university, or in a recognized hospital, institution, or dental clinic, and has acquired the high degree of training, qualification, or skill in one of these professional fields, such registrant should then be given the opportunity to become engaged in the practice of his profession in the armed forces, or in a civilian activity necessary to the public health, safety, or welfare, necessary to war production, or essential to the support of the war effort. In many instances following graduation from a recognized college or university, or the completion of an internship, a certain period of time will be required in the placing of such persons in an essential activity. When a registrant has been deferred as a necessary man in order to complete his training and preparation, it is only logical that his deferment should continue until he has had an opportunity to put his professional training and skill to use in the best interest of the nation. Accordingly, following graduation in any of these professional fields or following an internship, a registrant should be considered for further occupational classification for a period of not to exceed sixty days, in order that he may have an opportunity to engage in a critical occupation of his profession in the armed forces, war production, support of the war effort, or in an activity essential to civilian health, safety, or welfare, provided that during such period the registrant is making an honest and diligent effort to become so engaged.

"8. Deferment permitted whether or not commission is pending

The official statement of any recognized pre-medical, predental, preveterinary, or preosteopathic college or university, the official statement of any recognized medical, dental, veterinary, or osteopathic college or university, or the official statement of any hospital, institution, or dental clinic, giving a recognized internship, showing that a registrant satisfies the requirements of this bulletin, shall be sufficient for the consideration of such registrant for occupational classification on occupational grounds solely. Registrants will be considered for occupational classification as prescribed in this bulletin without regard for the fact that a commission in the armed forces may be granted to him or is pending.

"9. Procurement and Assignment Service

In order that every doctor, dentist, or veterinarian may render the greatest professional service to the nation, the President has created the Procurement and Assignment Service for the purpose of gathering information with respect to the supply of qualified medical doctors, dentists, and doctors of veterinary medicine. To work with Headquarters of the Procurement and Assignment Service, there have been appointed for each State and the District of Columbia, a State Chairman for medical doctors, a State Chairman for dentists, and a State Chairman for doctors of veterinary medicine. When considering the classification of any registrant who is a medical doctor, dentist, or doctor of veterinary medicine, the Director of Selective Service de-

sires that local boards, through the State Director, shall consult with the respective State Chairman of the Procurement and Assignment Service."

INTERNS AND RESIDENTS

Officials of the Army and Navy have indicated that they would prefer to have the needs of the Army and Navy for additional medical officers met through the commissioning of younger physicians. This will mean further curtailment of the num-

IF WILLING TO RELOCATE FILE YOUR NAME NOW

In a communication received from Dr. Frank H. Lahey, Chairman of the Directing Board of the Procurement and Assignment Service for Physicians, The Journal is requested to publish the following statement:

"It is of the utmost importance that the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, immediately has the name of any doctor who really is willing to be dislocated for service, either in industry or in overpopulated areas, and who has not been declared essential to his present locality. This is necessary if the medical profession is to be able to meet these needs adequately and promptly. We urgently request that any physician over the age of 45 who wishes to participate in the war effort send in his name to the State Chairman for the Procurement and Assignment Service in his State."

The Ohio Chairman is Dr. Robert Conard, 1005 Hartman Theater Building, Columbus.

ber of residents and fellows in many institutions, no doubt, and will make it necessary for institutions to make additional readjustments in their house staffs. The following article on this subject, published in the December 12, 1942, issue of *The Journal of the American Medical Association*, presents the picture on this question as viewed by the Directing Board of the Procurement and Assignment Service, Washington.

"According to the Procurement and Assignment Service, Washington, D. C., the expansion of the Army and Navy in 1943 and 1944 will de-

mand the services of such large numbers of young physicians that a critical appraisal of all positions held by interns and residents and fellows is necessary.

"Interns—Graduates of medical schools who hold commissions in the Army or the Navy will be allowed twelve months' deferment of active duty for the completion of an internship. This makes it necessary that internships begin immediately on graduation. Medical school graduates who are deferred by Selective Service may, under the Selective Service regulations, have their deferments continued through one year of internship. Medical school graduates who on account of sex, physical defects or other causes are not subject to induction or likely to be reclassified by Selective Service are not officially restricted as to the length of internships which they may serve but they too have a responsibility to make themselves available as early as possible for civilian services which contribute to the war effort.

"Residents and Fellows—Interns who have already served a year of internship must be considered as residents for the duration of the war. Although the Army and Navy appreciate the importance of graduate training in the various specialties of medical practice, they do not feel that they can at the present time defer calling interns to active duty in order that they may continue specialized training in civilian hospitals. Therefore, the only justification for the continuation of residencies and fellowships during the war is that they are essential for the provision of adequate medical care for the hospital patients or for the clinical training of medical students. In view of this situation, there are several principles that must be followed in the selection of residents or clinical fellows for 1943.

"First, the minimum number of residencies with which each hospital can function must be determined. For 1942 the Directing Board of the Procurement and Assignment Service stated that in general this number should be less than 50 per cent of the number of residents that these hospitals had before the war. For 1943 this number must be reduced still more.

"Second, having determined the minimum number of residents that are essential, these should be selected from the following groups in order:

"1. Physicians who for physical or other reasons cannot qualify for service with the Army or the Navy.

"2. Present interns or residents who are deferred by Selective Service. Preference in this group should be given to those who have been deferred in class IV-F and class III-A or III-B and maintain a bona fide family relationship with wife and/or children.

"3. Present interns who hold commissions in the Army or Navy. No requests for deferment of individuals in this group should be made until the possibilities of filling minimum essential residencies from individuals in groups 1 and 2 have been exhausted. It is impossible at the present time to give assurance that interns who hold commissions will be deferred. The Surgeon General of the Army and the Surgeon General of the Navy have assured the Procurement and Assignment Service of all possible cooperation in meeting this situation. On the other hand, the urgent needs for medical officers in this age group and the necessity of securing the authorization of the War and Navy departments to hold men with commissions in an inactive status beyond

one year of internship make it imperative that hospitals make every possible effort to fill essential residencies and fellowships without depending on interns who hold commissions or those who might be subject to induction by Selective Service.

"In case it becomes necessary to request deferment of active duty for any individuals in this group, such requests should be submitted to the state committee of the Procurement and Assignment Service.

"Approval of these requests must further be concurred in by the chairman of the Corps Area Committee and the representatives of the hospital and medical education committees."

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of Ohio physicians commissioned in the Medical Corps of the Army or Navy since the January issue of *The Journal* went to press on December 23, and up to January 21. Most of them are on active duty; others are awaiting orders and assignments. Readers are urged to inform *The Journal* as to errors, if any, in this list and to send in the names of commissioned medical officers not included.

Name	City	Rank
Beery, Walter C.	Lima.....	1st Lt., U.S.A.
Coulson, Austin	Malta.....	Lt. (j.g.) U.S.N.
Fisher, James L.	Youngstown.....	Lt. Comdr., U.S.N.
Gardner, G. E.	Lancaster.....	Lt. (j.g.) U.S.N.
Goldstein, Harry	Cincinnati.....	Capt., U.S.A.
Keating, Robert A.	Columbus.....	Lt. (j.g.) U.S.N.
Kless, John S.	Bucyrus.....	1st Lt., U.S.A.
Koch, Edward J.	Toledo.....	Capt., U.S.A.
Koons, Ervin	Columbus.....	1st Lt., U.S.A.
Ladd, L. W. Jr.	Cleveland.....	Capt., U.S.A.
Mannhardt, Herman W.	Bowling Green.....	Lt. (j.g.) U.S.N.
Martin, Howard A.	Toledo.....	Lt. Comdr., U.S.N.
McCullough, Lewis B.	Mansfield.....	1st Lt., U.S.A.
Meyer, J. H.	Cleveland.....	1st Lt., U.S.A.
Newell, L. J.	Dayton.....	Lt. Comdr., U.S.N.
Newman, A. P.	Toledo.....	1st Lt., U.S.A.
Nusbaum, W. D.	Lancaster.....	Lt., U.S.N.
Ritter, Karl F.	Lima.....	Capt., U.S.A.
Stout, Walter M.	Columbus.....	Capt., U.S.A.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 2346 Ohio physicians in the armed forces as of January 21 by counties. This is unofficial. If there are errors in the tabulations *The Journal* would appreciate receiving corrections:

Adams	2	Defiance	3	Huron	13
Allen	33	Delaware	5	Jackson	1
Ashland	10	Erie	10	Jefferson	28
Ashtabula	16	Fairfield	8	Knox	11
Athens	11	Fayette	2	Lake	17
Auglaize	5	Franklin	202	Lawrence	7
Belmont	8	Fulton	5	Licking	17
Brown	4	Gallia	6	Logan	9
Butler	25	Geauga	3	Lorain	32
Carroll	1	Greene	8	Lucas	143
Champaign	8	Guernsey	5	Madison	6
Clark	27	Hamilton	304	Mahoning	89
Clermont	9	Hancock	13	Marion	16
Clinton	7	Hardin	7	Medina	12
Columbiana	9	Harrison	4	Meigs	1
Coshocton	4	Henry	2	Mercer	5
Crawford	10	Highland	8	Miami	13
Cuyahoga	565	Hocking	3	Monroe	1
Darke	6	Holmes	2	Montgomery ..	117

Morgan	2	Putnam	5	Tuscarawas ..	16
Muskingum ..	7	Richland	40	Union	1
Noble	1	Ross	15	Van Wert	9
Ottawa	8	Sandusky	12	Vinton	2
Paulding	2	Scioto	16	Warren	3
Perry	4	Seneca	11	Washington ..	6
Pickaway	3	Shelby	7	Wayne	10
Pike	2	Stark	85	Williams	9
Portage	2	Summit	121	Wood	12
Preble	8	Trumbull	26	Wyandot	3
		Total	2346		

IN OTHER FEDERAL SERVICES

The following Ohio physicians have accepted appointments in other Federal services directly connected with war activities, some of them having been assigned to stations with the armed forces, during the past month:

Fowler, Hudson D., Jr.	Cleveland	Passed Asst. Surgeon.....	U.S.P.H.S.
Hartnett, W. Gordon	Fostoria	Medical Officer	Vet. Admin.
Hunter, Forest C.	Springfield	Captain	U.S.P.H.S.
Kovachs, John S.	Cleveland	Passed Asst. Surgeon.....	U.S.P.H.S.
McGough, James W.	Columbus	Passed Asst. Surgeon.....	U.S.P.H.S.
Orr, Paul F.	Perryburg	Passed Asst. Surgeon.....	U.S.P.H.S.
Rust, Cecil F.	Trotwood	Asst. Surgeon	U.S.P.H.S.
Simiele, Victor A.	Logan	Lieutenant	U.S.P.H.S.
Webb, W. B.	Cleveland	Asst. Surgeon	U.S.P.H.S.

WIN PROMOTIONS

The following Ohio physicians have been promoted to the rank indicated, since the January issue of *The Journal* went to press:

Name	City	Rank
Ashe, Wm. F.	Cincinnati.....	Major, U.S.A.
Berg, Theodore	Elyria.....	Capt., U.S.A.
Berndt, Albert L.	Portsmouth.....	Major, U.S.A.
Borer, R. J.	Toledo.....	Major, U.S.A.
Bonnell, Geo. H.	Worthington.....	Capt., U.S.A.
Brown, L. Emmitt, Jr.	Akron.....	Capt., U.S.A.
Cafero, Secondo Raymond	Youngstown.....	Major, U.S.A.
CaJacob, Melville E.	Cincinnati.....	Capt., U.S.A.
Chappel, Merwin R.	Athens.....	Major, U.S.A.
Clippinger, Conrad K.	Dayton.....	Capt., U.S.A.
Crile, Geo. W., Jr.	Cleveland.....	Lt. Comdr., U.S.N.
Dowling, James R.	Massillon.....	Major, U.S.A.
Floridis, Gregory G.	Dayton.....	Major, U.S.A.
Gates, S. E.	Conneaut.....	Capt., U.S.A.
Grau, Harry R.	Cleveland.....	Major, U.S.A.
Grove, Paul D.	Cincinnati.....	Major, U.S.A.
Hammersley, E. R.	Tuscarawas.....	Lt. Comdr., U.S.N.
Harris, Wm. B.	Columbus.....	Capt., U.S.A.
Harvey, Arch D.	Lebanon.....	Major, U.S.A.
Hauser, Chas. U.	Cincinnati.....	Major, U.S.A.
Hoffman, Henry L.	Cleveland.....	Capt., U.S.A.
Kelly, Fred R.	Cleveland.....	Major, U.S.A.
Kish, Louis S.	Cleveland.....	Capt., U.S.A.
Klinge, John E.	Massillon.....	Capt., U.S.A.
Limbacher, Henry P.	Cleveland.....	Capt., U.S.A.
Marshall, J. H.	Findlay.....	Lt. Col. U.S.A.
McCall, Edward M.	Columbus.....	Capt., U.S.A.
Minnig, Donald Irwin	Akron.....	Major, U.S.A.
Nauman, J. H.	Martins Ferry.....	Lt. Col. U.S.A.
Pelton, Bernard L.	Toledo.....	Capt., U.S.A.
Price, Walter S.	Phillipsburg.....	Major, U.S.A.
Prochaska, Chas. A.	Cleveland.....	Major, U.S.A.
Pumphrey, Gordon H.	Mt. Vernon.....	Major, U.S.A.
Rogers, John A.	Youngstown.....	Capt., U.S.A.
Rubin, Herman G.	Akron.....	Major, U.S.A.
Shaweker, Max	Dover.....	Comdr., U.S.N.
Silver, Ezra I.	Cleveland.....	Major, U.S.A.
Simpson, Walter M.	Dayton.....	Capt., U.S.N.
Spangler, Fred E.	Somerset.....	Major, U.S.A.
Sparks, Aubrey L.	Warren.....	Major, U.S.A.
Udelf, M. S.	Cleveland.....	Capt., U.S.A.
Walker, Glenn H.	Woodville.....	Major, U.S.A.

Enquirer Talks Sense Again on Matter Of "Rationing" Doctors

"Unquestionably, the shortage of physicians is one of the most serious shortages today existing. People can do without almost anything, commodity or service, better than without proper medical care. And the deficiency of medical men is a reality, in this and in almost every other American community, in consequence of the drain on physicians to the armed services. The actual shortage of nurses probably is more acute. But the services of less fully trained volunteers can be utilized more fully in the case of nursing.

"Consequently, the proposal to establish outright 'rationing' of doctors has been made. That was inevitable. But it does not follow that the proposal should be adopted. There is now an efficient 'board of procurement and assignment, under the Manpower Commission, which selects physicians for the armed services. It also aids state medical societies in transferring physicians from one community to another, to insure medical care to every city and town.

"So long as this semivoluntary system can be made to work reasonably well, we should avoid any system of outright compulsion which—in effect—would make all physicians pawns in a gigantic chess game and shift them about according to an abstract plan evolved in Washington. It is also desirable to keep the procurement and assignment of physicians in the hands of the board which now is working smoothly with the armed forces.

"This does not mean the army and navy can count on getting as many doctors as they want. If plans for a gigantic army continue, there will come a time when the shortage of medical care for civilians is more serious than an alternative reduction of physicians for the army would be. In medical care, as in other fields, a balance must be struck between civilian needs and military requirements."—Cincinnati Enquirer, Dec. 29, 1942.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. A. C. Trapold and Dr. George H. DeMay, Warren; Dr. Rollin R. Durant, Columbus; Dr. J. N. Cross, Newark; Dr. E. D. Kackley, Willard; Dr. C. H. Kirk, Toledo; Dr. Robert Rowe, Medina; Dr. C. Walker Munz, Cleveland; Dr. C. H. and Elsie Snell, Amherst; Dr. W. H. Montgomery, Louisville; Dr. George C. Smith, Maple Heights; Dr. John A. Moss, Barberton.

Napoleon—Dr. Chas. M. Harrison, who has been practicing for 51 years, recently celebrated his 74th birthday.

WAR NOTES

FOUR subsection chiefs of surgical service at the newly built, 1600-bed Bushnell General Hospital, Brigham City, Utah, are Ohio physicians. They are: Maj. Max T. Schnitker, Toledo, assistant to the chief of surgical service; Maj. John E. L. Keyes, Youngstown, chief of the eye, ear, nose, and throat subsection; Maj. Clyde S. Roof, Cincinnati, chief of general surgery subsection; and Capt. John M. Walker, Dayton, chief of the septic surgery subsection.

* * *

"The syringe type package for biologic products is one of the latest war casualties," says *The Journal of the American Medical Association*. When the present stock of serums, vaccines, and antitoxins packaged in single doses with syringes and needles is exhausted, no more will be available. It reported, however, that the War Production Board will give priority assistance in obtaining syringes and needles in the future.

* * *

Lt. J. Robert Schmidt, young Navy medical officer whose home is in Cincinnati and who received his medical education at the University of Cincinnati College of Medicine, has been cited by the Navy for heroically carrying out his duties while under fire in the Battle of Midway. He was also recently mentioned in press dispatches from "somewhere in the South Pacific" for rendering good medical care under adverse conditions aboard a destroyer to survivors of an aircraft carrier (not identified in the dispatches) sunk by the Japs. "Working under country-doctor conditions," the press correspondent wrote, Dr. Schmidt and his colleagues saved many a wounded sailor through skill and determination alone.

* * *

Five graduates of the University of Cincinnati College of Medicine, two of them classmates, are stationed at the Army Air Base, Hunter Field, Savannah, Ga. These fellow alumni now thrown together by the fortunes of war are: Lt. Col. Kenneth G. Gould, base surgeon; Capt. Carl F. Hammerstrom, Capt. Charles E. Franklin, Capt. Carl F. Wagner, and Lt. Samuel Gendelman. Col. Gould was in the class of 1929, Capt. Hammerstrom in the class of 1933, Capt. Franklin in the class of 1929, Capt. Wagner in the class of 1936, and Lt. Gendelman in the class of 1937.

Maj. John C. Blinn, New Philadelphia physician on duty with the Army medical corps on a South Pacific island, was the beneficiary of joint action by Santa Claus and the stork. He became the father of a baby daughter on Dec. 24, and if the cables, censors, etc., cooperated on the project, he probably learned of the young lady's arrival on Christmas day.

* * *

Following a five-weeks inspection tour of Army Air Force bases in North Africa, Brig. Gen. David W. Grant made the following comments about the medical care received by Uncle Sam's aviators in combat zones:

"I went over them with a fine-tooth comb. Our low sick and casualty rates prove we've got the best medical service in the world. Tropical diseases haven't bothered us. We are bothered only by the ordinary ailments we are used to at home. Our boys are getting the same personal attention our daddies got from the old family doctor."

* * *

Comdr. Max Shaweker, Dover physician now in the Navy Medical corps, is stationed at the U.S. Naval Training Station, Norfolk, Va. He was recently advanced to his present rank.

* * *

Capt. Louis Pillersdorf, Cleveland physician, writes from Billings General Hospital, Fort Harrison, Ind., that he is in charge of the neuropsychiatric section of that hospital, which has 130 beds. "Thanks again for the membership and *The Journal*," he writes. "*The Journal* keeps me up on what my friends are doing."

* * *

When the 11th officer candidate class graduated from the Medical Field Service School, Carlisle Barracks, Pa., on Dec. 23, the work of gradually discontinuing the Officer Candidate School at that post began and will be completed by March 1. However, as a means of offsetting the eventual closing of the medical administrative Officer Candidate School there, the number of medical department officers trained for field duty was substantially increased, starting Jan. 1.

* * *

Lt. Thomas E. Rardin, Columbus physician, and Lt. James B. Johnson, a 1940 graduate of the Ohio State University College of Medicine, are serving as assistant plans and training officers

at Robins Field, Warner Robins, Ga. Lt. Rardin's duties are concerned largely with officer instruction, and Lt. Johnson's work is in office administration and involves such phases of the plans and training section as the medical library, film library, and pictorial files.

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Capt. Calvin L. Baker, Cridersville physician, is with an Army medical corps unit in North Africa, according to information received by his family. Previously he was stationed in England and Scotland.

* * *

Capt. James M. Harsha, Washington C. H. physician, is serving as roentgenologist at the station hospital, Camp Murphy, Fla. "Thanks for the 1943 (membership) card," he writes. "Wish I could send you some of this swell sunshine and take you for a swim."

* * *

Add "It's a small world, etc."—Maj. Charles Prochaska and Lt. Christopher Colombi, who were virtually neighbors back in Cuyahoga County, are roommates at Randolph Field, Tex., where they are taking flight surgeon training. Maj. Prochaska practiced in South Euclid, and Lt. Colombi in Lyndhurst.

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Comdr. William S. McCann, native of Cadiz, is chief of medical service in the U.S. Naval Operating Base Hospital, Norfolk, Va. He was recently transferred to that post from Annapolis.

* * *

Special lapel buttons, which serve as identifying insignia, are being provided to all presidential appointees in the Selective Service System, according to information obtained from officials in State Selective Service headquarters. Included in the group of persons receiving them are examining physicians as well as members of local draft boards.

* * *

Capt. Frank C. Andrus, former instructor in pathology at the Ohio State University College of Medicine, died Nov. 14 at Battle Creek, Mich., while on duty as an Army medical officer. He was chief of laboratory service of the Percy Jones General Hospital at Battle Creek.

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Maj. Herman G. Rubin, Akron physician, is on temporary duty at New Orleans, La., where he is taking a six weeks' course in maxillo-facial plastic surgery at Tulane University School of Medicine. He was recently promoted to his present rank.

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Lt. Col. Porter C. Pennington, Findlay physician, is serving as commanding officer of the station hospital at Camp Breckinridge, Ky., ac-

cording to press dispatches. He had been chief of surgery at the Armored Force Replacement Center, Fort Knox, Ky.

* * *

Capt. H. O. Beeman, Port Clinton physician, is with the Army's forces in French Morocco, having taken part in the initial occupation of North Africa, according to a letter received by his friends in Port Clinton.

Write Us, Soldier! Your Pals Want To Hear About You

One reader of "War Notes" writes: "Encourage the boys to write to you as to their whereabouts. It is interesting to know where they are stationed."

Another reports: "I have corresponded with some friends with whom I had lost contact until securing their address from this column."

This should be enough of a hint to Ohio physicians in military service. They should send news notes about themselves, where they are stationed, and what they are doing (within the censor's limits, of course) to The Journal so that their friends and colleagues can keep track of them.

Lt. (j.g.) Austin A. Carlson, Malta physician in the Navy Medical Corps, served as ship's surgeon until recently on a warship which participated in landing operations in North Africa.

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Maj. R. D. Arn, Dayton physician, has been named executive officer of the Camp Sutton substation hospital at Charlotte, N.C.

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Lt. Col. William S. Keller, chief medical officer of the Office of Civilian Defense in the Fifth Service Command, recently bestowed a citation on Dr. Clyde M. Fitch, chief of emergency medical service in Portsmouth, and Dr. O. J. Walker, chief of emergency service in Youngstown, for "outstanding accomplishments and efficiency in organizing" the civilian defense set-up. The awards were made as part of a radio program, "You and the War," over station WLW.

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Lt. Comdr. H. V. Sharp, Akron physician, has been appointed chief of staff in surgery at Bainbridge Naval Station, Port Deposit, Md.

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Lt. Emerson Beery, former intern at Huron Road Hospital, Cleveland, and son of Dr. and Mrs. W. H. Beery, Lima, was an Army medical

officer aboard the ship, Tasker H. Bliss, when she was sunk in the operations off Casablanca. He assisted in caring for the victims of that sinking and was not injured himself.

* * *

Capt. Charles F. Egolf, Cincinnati physician, not only fills a half dozen assorted positions at the Army Air Force base hospital in Puerto Rico, where he is stationed, but he finds time to lead the "Continental Cavaliers," the base band.

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Several officers attached to the Army's 68th Station Hospital, composed of physicians and nurses from Dayton and the Miami Valley, have wired their families of their safe arrival at an unidentified base overseas.

* * *

Col. William C. McCally, Cleveland physician and commanding officer of the Army's Fourth General Hospital or "Lakeside Unit," writes from Australia that the wounded American soldiers and sailors convalescing at his hospital "clamor for return to their outfits." "They are a great bunch of boys," he says. "If there ever was a pacifistic tendency in American youth at the outbreak of the war, it certainly has been reversed."

* * *

Lt. Theodore R. Mattocks, Marietta physician, has been transferred from Westover Field, Mass., to the Army Air Forces' School of Aviation Medicine, Randolph Field, Tex., where he will take flight surgeon training.

* * *

Among the recommendations recently taken under advisement by Navy Surgeon General Ross T. McIntyre, resulting from a conference with an honorary consultant board, is that the number of skilled anesthetists in the medical corps be increased partly through training and utilizing medical officers of the Women's Reserve. Commissioning of 60 medical officers in the WAVES had previously been authorized, these medical officers to be assigned to training schools and stations of the Women's Reserve.

* * *

Recently promoted to the rank of captain in the Navy medical corps is Dr. Winchell McK. Craig, native of Washington C.H., and widely known in Ohio medical circles. Captain Craig visited his home recently while on leave from the Navy Medical Center, Bethesda, Md., where he is chief of neurosurgery.

* * *

High praise for the Army medical corps was sounded by Ernie Pyle, one of America's favorite

itinerant columnists, in a recent newspaper dispatch from North Africa. Writes Mr. Pyle:

"So far, the doctors can be, and are, proud of their work. The nurses have already covered themselves with glory. The wounded have only praise for those who pulled them through. Our only deaths in the original occupation were those killed outright and those so badly wounded nothing could have saved them. In other words, we lost almost nobody from infection, or from medical shortcomings in the hurly-burly of battle."

Your Help in Keeping Military Roster Up To Date Solicited

By using various reliable sources, the Ohio State Medical Association is endeavoring to keep its file of Ohio physicians in military service or in service for the duration with Federal agencies accurate and up to date.

It needs the help of all members of the Association in seeing that no name is overlooked on this roll of honor.

Therefore, when a physician enters the armed forces or government position, the Association would appreciate receiving information as to his rank and assignment from him or from his family or friends.

Lt. Luther W. High, Millersburg physician, is enrolled at the school of Aviation Medicine, Randolph Field, Texas, after having had several interesting assignments in recent months. Stationed first at Westover Field, Mass., he later attended the Medical Field Service School, Carlisle Barracks, Pa., after which he was assigned by the Air Surgeon to recruiting duty in Syracuse, N. Y.

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Lt. David Lewis, Grove City physician, has had assignments almost parallel to Lt. High's. He was first stationed at Westover Field, and later he took the Medical Field Service course at Carlisle Barracks. Now he is enrolled at the school of Aviation Medicine.

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Three Ohio physicians now in the Navy medical corps and stationed at the officer candidate training station, Marine Barracks, Quantico, Va., are Lt. Comdr. W. S. Obenour, Zanesville, Lt. Comdr. E. R. Hammersley, Tuscarawas, and Lt. Comdr.

W. E. Masters, Columbus. Dr. Masters is executive officer of the post dispensary, to which Dr. Obenour is also attached, and Dr. Hammersley is a flight surgeon and senior medical officer of the two air station dispensaries at the Barracks.

* * *

Lt. Ervin Koons, 1941 graduate of Ohio State University College of Medicine and former intern at White Cross Hospital, Columbus, has arrived safely overseas with an Army medical corps unit, according to word received by his parents, Mr. and Mrs. Clifton Koons, Clyde, from the War Department.

* * *

Army medical officers at a general hospital located on an unidentified South Pacific island report two new types of injuries, crushed heels and compression wounds of the abdomen, according to an Associated Press dispatch from that base. A considerable number of men rescued from torpedoed ships suffered crushed heels from the terrific upward thrust of the decks of their ships when bombed, the physicians report, and the abdominal compression is suffered by men who are in the water when bombs explode nearby due to the fact that concussion caused by the explosion is not dissipated in the water as it is in air.

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Lt. Thomas M. Hayes, Springfield physician, is enrolled at the School of Aviation Medicine, Randolph Field, Texas. He was transferred to that post in December from Westover Field, Mass.

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Capt. A. H. Kimmel, Norwalk physician, and Lt. Arvin Harold, Tiffin physician, are attached to the 25th Air Base Group, nicknamed "The Fighting 25th", Westover Field, Mass. Both men completed the Medical Field Service training at Carlisle Barracks, Pa., in December.

* * *

The following letter from Lt. James J. Thomas, Alliance physician now an Army Medical Officer in French Morocco, is typical of the many communications from physicians in service which make the editor's task a gratifying one:

"Was overjoyed to receive the November issue of *The Journal*. Enjoyed reading the articles on anesthesiology—at present I'm anesthetist on a general surgery team and it's very refreshing to read articles by and about Ohio doctors. Also I can readily understand the situation of the Ohio doctor's "down under" as at present we're in French Morocco, North Africa. Through *The Journal* I now know that one of my classmates is also on this continent. . . . Thanking you sincerely, I remain yours for an early victory."

Lt. Col. R. T. Stevenson, native of Dayton in the regular Army medical corps, is commanding officer of the 349th Air Evacuation Group, Bowman Field, Ky., which is the basic organization of the Army's "air ambulance" service. He was recently promoted to his present rank.

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Lt. Col. J. H. Marshall, Findlay physician, has been transferred from Australia to another Army base on a South Pacific island, according to information received by his family. He was recently appointed commanding officer of a hospital group whose training he directed in California before being sent overseas, and, according to a letter received by Mrs. Marshall, wounded soldiers from the South Pacific battle zone are evacuated to the hospital which is under Col. Marshall's direction.

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Lt. John E. Martin, Columbus physician, is stationed at the Santa Anna, Calif., air base where he is completing his training as a flight surgeon.

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Maj. Charles U. Hauser, Cincinnati physician and son of Dr. Charles E. Hauser, First District member of the Ohio Procurement and Assignment Committee, is at Langley Field, Va., where he is in charge of orthopedic surgery at the station hospital. He was recently promoted to his present rank.

Department of Physical Medicine Is Opened at Ohio State University

Establishment of a Department of Physical Medicine in the Ohio State University College of Medicine and the addition of Dr. David R. Jones to the faculty as professor of physical medicine were announced recently by university officials. The new department began operations with the current winter quarter.

Dr. Jones is serving also as head of the department of physical medicine of the University Hospital. Under his direction the various types of physical therapy in the hospital, previously located in several different departments, will be integrated to facilitate clinical teaching.

Dr. Jones is a graduate of the University of Louisville School of Medicine. He is a native of Worthington, Ohio, and studied at the Ohio State University prior to his medical training. He served an internship at New Haven Hospital, New Haven, Conn., and was a graduate assistant in orthopedics at Massachusetts General Hospital, Boston. More recently he has been director of the Poliomyelitis Clinic, Louisville City Hospital, and was a clinical assistant in orthopedic surgery at the University of Louisville School of Medicine.

Legislative Session Opens; Health Committees In Senate and House Are Appointed

As this issue of *The Journal* went to press, the Ninety-Fifth Ohio General Assembly was getting down to business. This Assembly, now convening in Columbus, is the first "war session" of the Ohio Legislature since the Civil War. The leaders are hopeful for a short session, confined primarily to problems arising from and having to do with the war.

In his address to the General Assembly on January 11, Governor Bricker made a number of specific recommendations for legislative enactment, including a recommendation that food consumed on the premises and medicine sold on prescription be excluded from the Retail Sales Tax.

ELECTIONS ARE HELD

Organization of both houses of the General Assembly was completed during the first week of the session. The Senate re-elected Senator Frank E. Whittemore, Akron, a veteran member of the upper house, as President pro-tem (Republican floor leader). Senator William H. Boyd, Cleveland, was elected by his Democratic colleagues as minority floor leader. There are 28 Republican and 5 Democratic members of the Senate.

The House of Representatives re-elected Mr. William M. McCulloch, Piqua, as Speaker of the House. This is Mr. McCulloch's third consecutive term as Speaker, he being the only person who has held that important position for three terms, attesting to his ability and capacities for that post. Representative William H. Deddens, Cincinnati, was elected Speaker pro-tem (Republican floor leader). The Democratic minority of 25 elected Representative John J. Carney, Cleveland, as minority floor leader. There are 111 Republican members of the lower house.

PERSONNEL OF HEALTH COMMITTEES

The following Senators were appointed by the Senate on recommendation of the Committee on Committees to serve on the important Senate Health Committee before which medical and health proposals will be heard:

Evert E. Addison, (R) Franklin County, chairman

P. H. Rogers, (R) Lorain County, vice-chairman

Lawrence A. Kane, (R) Hamilton County

D. A. Liggitt, (R) Logan County

James A. Jones, (R) Portage County

Stanley Mechem, (R) Athens County

Emil A. Bartunek, (D) Cuyahoga County

The following were appointed by Speaker

McCulloch as members of the important House Health Committee:

E. LeFever, M.D., (R) Athens County, Chairman

C. A. Craig, M. D., (R) Guernsey County

Howard L. Williams, D. D. S., (R) Trumbull County

Paul R. Barnes, pharmacist, (R) Franklin County

Gilbert N. Frash, (R) Morgan County

Carl Guess, (R) Carroll County

John Hayden, (R) Clermont County

John S. Seymour, (R) Lucas County

Craig D. Slagle, (R) Gallia County

R. H. Longenecker, (R) Wood County

John J. Day, (D) Cuyahoga County

Homer H. Hannah, (D) Brown County

Guy S. McKelvey, (D) Monroe County

DR. STEWART VICTIM OF HEART ATTACK

Dr. F. R. Stewart, Ironton, serving his second term in the Legislature, died of a heart attack at his home on January 17. He had attended the sessions of the General Assembly held during the first two weeks of the month and was in apparent good health when the Assembly recessed on January 13. His death will be a real loss to the Legislature as well as to the medical profession as he had always been a staunch supporter of the policies of the profession on matters of legislation. Speaker McCulloch had appointed him as chairman of the Health Committee and after his death named Dr. LeFever to the Chairmanship, a position the latter has held for many sessions.

Pertinent comments on proposals of interest to the medical profession will be carried in the regular Legislative Bulletins transmitted weekly to Legislative Chairmen of County Medical Societies who are expected to discuss such matters at County Society meetings and take whatever local action is suggested or deemed necessary.

Alliance—New staff officers of City Hospital are: Dr. Harry L. Weaver, president; Dr. R. R. Moseley, vice-president, Dr. L. S. Persell, secretary; Dr. M. A. Schlott, treasurer.

Bedford—Dr. V. S. Glass spoke on "Fatigue" at a meeting of the Rotary Club.

Delaware—Dr. Elizabeth Workman has been re-appointed county health commissioner.

Sandusky—Dr. F. E. Mahla, health commissioner of Erie County and Sandusky, was the speaker, and staff members of the city health department presented a skit, at a luncheon meeting of the Rotary Club.

Xenia—"The Physician, the Public and the Present Emergency", was the topic discussed by Dr. R. R. McClellan at a meeting of the Greene County Public Health League.

Deadline for Payment of 1943 State Association Dues Near for All Except Military Members; Names of the Unpaid Must Be Removed From Mailing List of The Journal After This Issue

THE Journal will be compelled to remove from its mailing list **AFTER THIS ISSUE** the names of all physicians whose 1943 dues have not been received at the Columbus Headquarters Office of the Ohio State Medical Association, **EXCLUSIVE OF THOSE IN MILITARY SERVICE** who are carried on the membership roster through waiver of annual dues. This action is taken to comply with the Postal Regulations and with the provisions of the Constitution and By-Laws of the State Association.

After March 1, 1943, the name of no physician who has **NOT** paid annual dues, unless he is entitled to military membership without payment of dues, will be carried on the membership roster and such a report will have to be sent to the American Medical Association so it can remove names of unpaid physicians from its records. Names will be restored to the membership roster as annual dues are received.

THESE COMPLICATIONS CAN BE AVOIDED IF ALL PHYSICIANS WHO HAVE NOT PAID THEIR 1943 STATE ASSOCIATION MEMBERSHIP DUES (\$7.00) WILL DO SO IMMEDIATELY. DUES SHOULD BE PAID TO THE SECRETARY-TREASURER OF THE COUNTY MEDICAL SOCIETY. HE WILL TRANSMIT THEM TO COLUMBUS.

Payment of dues during February will assure receipt of the March issue and subsequent issues of The Journal and will make such physicians eligible to participate in the services and benefits of the State Association and American Medical Association.

IF YOU HAVE NOT PAID YOUR ANNUAL STATE ASSOCIATION DUES, TAKE CARE OF THIS IMPORTANT MATTER IMMEDIATELY! A STRONG ORGANIZATION IS VITAL IN THESE TROUBLESOME TIMES. YOU SHOULD BE A PART OF IT.

Obstetrics-Gynecology Exams

Written examinations and review of case histories, which constitute Part I of the examinations given by the American Board of Obstetrics and Gynecology, will be held in various cities of the United States and Canada at 2 p.m. on Feb. 13. Further information and application blanks may be obtained from Dr. Paul Titus, secretary of the board, 1015 Highland Bldg., Pittsburgh (6), Pa. Special arrangements have been made, according to Dr. Titus, for candidates in military service to take the Part I examination at their places of duty, the written examination to be proctored by the commanding officer or some responsible person designated by him. Candidates who successfully complete Part I of the examination proceed automatically to Part II, which will be held at Pittsburgh May 19 through 25.

Dayton—Dr. Everett F. Conlogue, formerly assistant medical director of Oakville Memorial Sanatorium, Memphis, Tenn., is the new medical superintendent of Stillwater Sanatorium.

A.M.A. Loses in Supreme Court

By a vote of 6 to 0, with two justices—Justices Murphy and Jackson not participating—the United States Supreme Court on January 18 upheld the conviction of the American Medical Association and the District of Columbia Medical Society on charges of restraint of trade in connection with their activities growing out of a conflict between physicians and hospitals and Group Health Associations, Inc., a cooperative organization providing medical services for Federal employes in the District of Columbia. Excerpts from the court's decision will be published in a later issue of *The Journal*.

London—Dr. T. R. Laughbaum, health commissioner at Lake City, Mich., for nine years, has been appointed to a similar capacity for Madison County. He is a native of Galion.

Toledo—Dr. Earl E. Kleinschmidt, chairman, Department of Preventive Medicine, Public Health and Bacteriology of Loyola University School of Medicine, Chicago, has been appointed health director of Toledo.

Physician Can Appeal To Obtain More Gasoline If Need Is Justifiable; Other Rationing Regulations Discussed

SEVERAL misunderstandings about the regulations covering gasoline rationing as they apply to physicians and to driving of automobiles to obtain necessary medical attention have arisen. Members of the Headquarters Staff of the Ohio State Medical Association have discussed these with state officials of the Office of Price Administration, the rationing administrative agency. This article, attempting to clarify those points, is based on the conferences referred to and on regulations as they existed when this issue of *The Journal* went to press.

One question which has caused some confusion is that arising when a local rationing board refuses to grant a supplemental allowance of gasoline to a physician for essential occupational driving. As was pointed out in the article published in the December, 1942, issue of *The Journal*, pages 1139-1141, (which every physician should digest carefully), administration of the regulations has been decentralized, each rationing board having considerable autonomy in deciding how much gasoline an individual is entitled to.

APPEAL PROCEDURE

However, an individual (a physician) who believes that the board has made a mistake in refusing to grant him additional gasoline for essential driving **may file an appeal** as provided in the regulations. Such appeal should be filed with the local board concerned. The board must act on the appeal within five days. If the board decides to overrule the appeal, the board then must send the appeal blank and all other documents on the case to the state office of the Office of Price Administration for final consideration and decision.

It has been suggested to each county medical society that it maintain an active committee to serve as a liaison between the medical profession and the rationing boards, or have the society's War Participation Committee act in that capacity. Therefore, if a physician has what he believes to be a justifiable complaint on the matter of gasoline rationing, **he should discuss it in the first instance with his county medical society's committee.** It would be wise for a physician to use the appeal procedure only as a last resort. Many questions of this kind can be worked out by the individual physician and the rationing board if all facts in the case are submitted to the board and the board gives them thorough consideration.

CANNOT HANDLE INDIVIDUAL CASES

The Headquarters Staff of the State Association will discuss matters involving general poli-

cies or widespread criticism with state officials of the OPA, but it is **not possible to intervene on behalf of individual physicians** in cases where the decision of the board resolves itself into a difference of opinion between the board and the physicians. In such instances the physician should appeal as indicated above.

On the other hand if a board takes action which adversely affects all physicians of a community and, therefore, would make it impossible for the medical profession to meet the medical and health needs of the area, the Headquarters Office should be notified so that conferences can be arranged with the proper state officials.

It is the intent of the regulations to provide physicians with an adequate amount of gasoline for meeting community needs and OPA officials state that abuses on the part of either a rationing board or an individual physician cannot be tolerated. In other words, a rationing board should be fair and logical in its decisions and, on the other hand, a physician should realize that "B" and "C" cards and supplemental allowances are to cover only essential occupational driving.

"DRIVING TO THE DOCTOR" ANGLE

Question No. 2 which arose recently was based on newspaper articles in several communities about the "seizure of ration books for abuses", which inferred that "going to the doctor" is classified as non-essential driving and that an individual using his car for that purpose might be subjected to disciplinary action. **That impression is erroneous.**

Physicians have been encouraging patients to visit their offices to assist them in conserving time—a vital factor in medical practice under wartime conditions, and OPA officials have pointed out that it certainly is not the intent of the rationing regulations to make it impossible for a person to visit a physician, when necessary.

REGULATIONS INTERPRETED

The present situation in the use of automobiles for visiting a physician is as follows:

1. Theoretically, the holder of an "A" book is entitled to enough gasoline each month for 150 miles of occupational driving and 90 miles of so-called "non-essential" or personal driving. Since going to a doctor's office by a patient wouldn't be occupational, it would fall into the second category. Actually, the holder of an "A" book can use his mileage as he wishes. For instance, if he can't stay within the 90-mile limit in going to church, the grocery store, picture show and the doctor's office—and he

hasn't used all of the 150 miles for "occupational" driving—he can use that for the other purposes.

2. The holder of a "B" or "C" book has obtained it, presumably, because he needed additional gas for "occupational" purposes. He is allowed only 90 miles of driving for other purposes. If it is necessary for him to exceed that because of trips to a doctor's office, he must apply for supplementary coupons for that specific purpose.

3. It is not the intent of the OPA officials to penalize drivers who are using gasoline for legitimate purposes. They are after the "B" and "C" book holders who have been allotted supplementary mileage for occupational purposes—and are using gasoline for strictly pleasure and other unnecessary driving, and not for the purpose for which it was allowed.

4. While using an automobile to visit a physician is not theoretically "occupational driving", neither is it actually "non-essential or pleasure driving", although it is a part of the driving which an individual is expected to do on purely personal affairs, in contrast to business matters.

5. The arrangements which have been made for special rations for those who need supplemental gasoline for emergencies—such as obtaining necessary medical attention—are short-time rations and will be issued only where necessity can be proved and where the need cannot be met under the regular ration books and allowances.

Counter-Prescribing for Syphilis And Gonorrhea Decreasing

A recently completed survey by the American Social Hygiene Association indicates that pharmacists are playing an important role in the wartime control of venereal diseases through greatly decreased counter prescribing and by discouraging self-diagnosis among their customers, according to a report from the association.

Studying 716 drug stores in 46 cities through 15 different states, representatives of the association found that counter prescribing for syphilis and gonorrhea has "greatly decreased". Only 11 per cent of the establishments surveyed offered diagnosis and treatment for conditions presumed to be syphilis and gonorrhea. Thirty-two per cent sold remedies on specific request but did not attempt to diagnose, and 57 per cent urged immediate and well qualified medical care.

In a large proportion of the drug stores where such remedies were stocked and sold, the investigators found that the proprietors advised that "self medication is a bad and dangerous business".

Results of this survey showed decided improvement over conditions existing in 1939 and 1940, when a similar study made under the joint au-

spices of the United States Public Health Service and the American Social Hygiene Association indicated that in 62 per cent of the stores surveyed offers were made to diagnose and treat syphilis and gonorrhea.

Annual Prize Essay Contest of Obstetricians Announced

Announcement of the Annual Prize Essay Contest of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, was recently made by Dr. James R. Bloss, Huntington, W. Va., secretary of the Association. Rules governing the award follow:

(1) The award which shall be known as "The Foundation Prize" shall consist of \$150.00.

(2) Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching obstetrics, gynecology or abdominal surgery.

(3) Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.

(4) Manuscripts must be limited to 5000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis.

(5) The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the journal of the author's choice. Unsuccessful contributions will be returned promptly to their authors.

(6) Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the secretary before June 1.

(7) The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation.

(8) The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the secretary of his name and address at least two weeks before the annual meeting.

In Memoriam

Leslie Lawson Bigelow, M.D., Columbus; Harvard Medical School, Boston, 1906; aged 62; member of the Ohio State Medical Association and Fellow of the American Medical Association;



died Jan. 15. At the time of his death, Dr. Bigelow was acting dean of the College of Medicine of the Ohio State University and acting director of the University Hospital. Throughout his professional career he had been a leader in promoting the interests of the medical profession and medical education.

In 1927-1928 Dr. Bigelow served as President of the Ohio State Medical Association. Before and after his election to the highest office of the State Association, Dr. Bigelow served it in many other capacities. He was at one time chairman of the Committee on Public Relations and Economics; a member of the Publication Committee, and a former member of the Committee on Judicial and Professional Relations. He was a director and former President of the Columbus Academy of Medicine. He served also as President of the Harvard Medical Alumni Association in 1940-1941.

Widely known for his ability as a surgeon as well as for his eminence in medical organization, Dr. Bigelow was a Fellow of the American College of Surgeons. He began teaching as an instructor in surgery at Ohio State University in 1914, and in 1938 he was appointed to a full professorship in clinical surgery. He assumed the position of acting dean of the College of Medicine in February, 1942, when Dean Hardy Kemp was granted leave to enter military service.

Dr. Bigelow was a frequent writer and speaker on subjects pertaining to both scientific medicine and medical economics. He was known as a man of deep cultural interests outside his professional field, and for many years he was a member of Columbus' famous Kit Kat Club, serving as its president in 1936. He held membership in the First Congregational Church of Columbus.

For 25 years Dr. Bigelow was chief of staff of Children's Hospital, Columbus, and he also held staff positions at Grant and St. Francis hospitals as well. He was one of the original founders and the first secretary of the Ohio Society for the Prevention of Tuberculosis. He belonged also to

George Washington Crile, M.D., Cleveland; University of Wooster Medical Department, Cleveland, 1887; aged 78; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 7. A world renowned surgeon and leader in scientific research, Dr. Crile was one of the most outstanding and colorful figures in the history of Ohio medicine.

Dr. Crile was born in Chili, Ohio. He was graduated in 1884 from Ohio Northern University with an A.B. degree before beginning his medical education. After his graduation from medical school he took postgraduate work in London, Paris, and Vienna and then returned to Cleveland to become a lecturer in histology and later a professor of the principles and practice of surgery at Wooster University. From 1900 to 1911 he was professor of clinical surgery at Western Reserve University School of Medicine, and from 1911 to 1924 he was professor of surgery. Since 1924 he had been professor emeritus of that institution.

In 1921 Dr. Crile, together with Dr. William E. Lower and Dr. Frank E. Bunts, established the Cleveland Clinic Foundation, which he served as director of research. Research conducted by Dr. Crile included the basic factors concerned in circulation, respiration, blood chemistry, and the body's source of energy. He is credited with having been the first to perform a direct blood transfusion, which he did in 1905.

Scientific honors and recognition were heaped on Dr. Crile. In 1914 he was awarded the gold medal of the American Medical Association for his work in the development of anesthetics and his discovery of the laws of shock and deferred shock as they pertain to surgical operations. Previously he had been awarded the Senn Prize of the American Medical Association, the Cartwright Prize of Columbia University, and the American Medicine medal for service to humanity. In later years he was presented with the National Institute Social Sciences Medal and the Trimble Lecture Medal, the Lannelongue International Medal of Surgery of the Société Internationale de Chirurgie de Paris, the Cleveland medal for public service, and the distinguished service gold key of the American Congress of Physical Therapy.

Dr. Crile also led a distinguished career in military medicine. During the Spanish American War he was a major in the medical corps, serving as brigade surgeon in Cuba and Puerto Rico. At the outbreak of World War I, he entered

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LESLIE L. BIGELOW, M.D.*(Continued from page 172)*

the Chesapeake and Ohio Association of Surgeons and was at one time its president.

When he completed his term as President of the Ohio State Medical Association in 1928, Dr. Bigelow obtained a leave of absence from the University faculty and spent a year in special study abroad visiting Europe's outstanding clinics.

Surviving Dr. Bigelow are his widow, Mrs. Elizabeth Cole Bigelow, and three sons, all of Columbus.

GEORGE W. CRILE, M.D.*(Continued from page 172)*

service again, first as lieutenant colonel and later as colonel. He was instrumental in organizing Base Hospital No. 4, the famous Lakeside Unit which took the first American flag that accompanied troops onto foreign soil in that conflict. Dr. Crile retained his commission and became a brigadier general in the medical reserve corps in 1921.

In 1919 he was awarded the American Distinguished Service Cross for his work as an Army surgeon, and in the same year he became an honorary member of the Military Division, third class, Companion of the Bath (British). He was made a Chevalier in the French Legion of Honor in 1922.

Dr. Crile held membership in many professional organizations. Among them were: American Association of Anatomists; American Association for the Advancement of Science; American Association for the Study of Goiter; American Physiological Society; American Association of Obstetricians, Gynecologists and Abdominal Surgeons; Southern Surgical Association; Southern Medical Association; American Philosophical Society; American Association of Pathologists and Bacteriologists; Society of Clinical Surgery; Society of Experimental Biology and Surgery; Society of Experimental Biology and Medicine; National Institute of Social Sciences; National Research Council; Association for the Study of Internal Secretions; American Heart Association; American Medical Editors' Association; Cleveland Medical Library Association; and Interstate Postgraduate Medical Association of North America. He was a member of the founders' group of the American Board of Surgery and a former president of the American Surgical Association. He was also a member of the board of regents of the American College of Surgeons for 30 years and was chairman of the board from 1917 to 1939.

Dr. Crile was a prolific writer in both medical and non-medical publications, and from the be-

ginning of his long career in research until recently he published many papers on his findings. He was also the author of a number of textbooks.

Survivors of Dr. Crile include his widow, Mrs. Grace McBride Crile, two daughters, and two sons, one of whom Lt. Comdr. George Crile, Jr., is a Navy medical officer now on duty in the South Pacific.

Theodore Beck, M.D., Pleasant Hill; Columbus Medical College, 1892; aged 79; died Dec. 15. Dr. Beck taught school for several years in Darke County before beginning his medical education. He was a graduate of Otterbein College, Westerville. Survivors include his widow and nine stepchildren.

Pern Jefferson Bidwell, M.D., Toledo; Starling Medical College, Columbus, 1904; aged 63; former member of the Ohio State Medical Association and the American Medical Association; died Dec. 23. Dr. Bidwell served as a captain in the Army medical corps overseas during World War I and remained in France later doing special work in brain surgery. He also took postgraduate study in Vienna. Surviving are his widow, one daughter, and a brother.

Lewis Allen Buchman, M.D., Canton; University of Wooster Medical Department, Cleveland, 1903; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 6. Dr. Buchman was for many years chief of surgery at Aultman hospital, Canton, and served also as a lecturer in the hospital's school of nursing. During World War I, he was an Army medical officer. He was a 32nd degree Mason and a director of the Canton Auto Club. He is survived by his widow, a daughter, and three brothers.

Arthur Ward Detrick, M.D., New Carlisle; Ohio State University College of Medicine, 1908; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 3. Dr. Detrick had practiced in New Carlisle for 30 years. He was active in various branches of Masonry and in the Odd Fellows Order and was a member of Methodist church. Survivors are his widow, a stepdaughter, and two sisters.

Merle d'Aubigne Flenner, M.D., Hamilton; Miami Medical College, Cincinnati, 1903; member of the Ohio State Medical Association and Fellow of the American Medical Association; aged 64; died Jan. 3. Dr. Flenner had served as chief of the medical staff at Fort Hamilton Hospital since it was built. He was very active in Rotary, having held all important offices in the Hamilton club including the presidency. He pioneered

youth welfare work for Rotary, for which he was commended by Rotary International. He is survived by his widow; one son, Dr. George Flenner, Hamilton; one daughter; two brothers; and a grandchild.

Sheridan C. Griffith, M.D., Worthington; National Normal University College of Medicine, Lebanon, 1893; aged 75; died Jan. 8. Dr. Griffith began practice in Sardis, Monroe County, and moved to Worthington in 1904. He continued practicing in his office connected with his home until his fatal illness. Survivors include his widow; one son, Dr. W. Lester Griffith, Worthington dentist; two daughters; a brother; and two nephews who are physicians, Dr. Harry L. and Dr. Joseph M. Griffith, both of Columbus.

William Heston Harper, M.D., Columbus; Ohio Medical University, Columbus, 1901; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 7. Dr. Harper retired in 1937 after 34 years of general practice. He was a native of Morgan County. Surviving are his widow, two sons, a daughter, a sister, his step-mother, and a half-brother and half-sister.

Jesse Isaac Jones, M.D., Manchester, Iowa; Ohio State University College of Homeopathic Medicine, 1920; aged 49; died Dec. 28 in Manchester. He was a native of Laura, Ohio. He is survived by his wife, a son, two brothers, and three sisters.

Franklin G. Lightner, M.D., Sabina; Medical College of Ohio, Cincinnati, 1890; aged 75; died Dec. 13. Before he retired a few years ago, Dr. Lightner had practiced medicine in Sabina for 50 years. He is survived by one son and a sister.

Charles Reese Longworth, M.D., San Diego, Calif.; Ohio Medical University, Columbus, 1904; aged 73; former member of the Ohio State Medical Association and the American Medical Association; died Dec. 2 in Covina, Calif. Dr. Longworth, native of Van Wert, practiced in Columbus until 1924.

Reed Madden, M.D., Xenia; Eclectic Medical College, Cincinnati, 1894; aged 72; member of the Ohio State Medical Association and the American Medical Association; died Dec. 26. After a year of general practice in association with his father, the late Dr. William P. Madden, Xenia, Dr. Madden took postgraduate study in eye, ear, nose, and throat in New York and abroad. He was a member of the volunteer medical and surgical consulting staff, O.S. and S.O. home, Xenia, and was active in Masonry. Survivors include his widow, three step-children, and several grandchildren.

Joseph D. Morgan, M.D., Van Wert; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1881; aged 85; died Dec. 11. Dr. Morgan had practiced in Van Wert County for 59 years. He was active in civic affairs, and, while residing for a short time in Indiana, served two terms in that state's senate. He was a 32nd degree Mason and belonged to the Odd Fellow's order. Survivors include a daughter, two brothers, a sister, and several grandchildren.

Harry Charles Nash, M.D., Cleveland; Western Reserve University School of Medicine, 1922; aged 46; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 3. Serving in the medical corps of the Army of the United States. Capt. Nash was stationed with the Air Corps at Teague, Texas, at the time of his death. Before entering military service, he has been senior assistant visiting surgeon at St. Vincent Charity Hospital, Cleveland, in which institution he had also interned and held other staff positions. He was a member of Phi Chi professional fraternity and the Catholic Physicians Guild. He belonged also to the Holy Name Society. Survivors are his widow, a son, his mother, and two brothers.

LaFayette Neufarth, M.D., Mt. Healthy; Medical College of Ohio, Cincinnati, 1883; aged 88; died Dec. 29. Dr. Neufarth was active in civic affairs, having served for 30 years as president of the Mt. Healthy Board of Education. He was also active in Masonry. Survivors include four daughters and several grandchildren and great-grandchildren.

Moses D. Rabenoyich, M.D., Toledo; University of St. Vladimira Faculty of Medicine, Kiev, Russia, 1879; aged 84; a former member of the Ohio State Medical Association and the American Medical Association; died Nov. 25. Shortly after his graduation from medical school, Dr. Rabenoyich came to the United States and settled in Toledo. He gained recognition for his early use of diphtheria antitoxin. Dr. Rabenoyich was formerly active in the Odd Fellows, the Foresters, and the Modern Woodmen of America. He was a member of Zion Evangelical church. Surviving him are his widow and three stepchildren, one of whom is Dr. Herman J. Bollinger, Toledo.

William Charles Schmidter, M.D., Cincinnati; Miami Medical College, Cincinnati, 1900; aged 73; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 18. Dr. Schmidter was in practice with his son, Dr. William C. Schmidter, Jr., at the time of his death. He served as attending physician to the Little Sisters of the Poor, Cincinnati, for 40 years and was on the staffs of Good Samaritan and St. Francis hos-

pitals there. He was a member of the West End Medical Society, Cincinnati, and belonged to the Knights of Columbus. Besides his son, he is survived by one daughter.

Leo Sebastian Schumacher, M.D., Cleveland; St. Louis University School of Medicine, 1910; aged 55; former member of the Ohio State Medical Association and the American Medical Association; died Dec. 13. For more than 25 years Dr. Schumacher was engaged in the practice of pediatrics on Cleveland's West Side. He was on the staffs of Deaconess Evangelical and St. John's hospitals. His survivors are his widow, a son, and a daughter.

John William Shaffer, M.D., Youngstown; Ohio Medical University, Columbus, 1898; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 3. Dr. Shaffer had been senior surgeon at St. Elizabeth's Hospital, Youngstown, for 20 years. He had a number of active interests outside his profession, one of which was the Youngstown Players group, of which he was a director and vice president. He was also president of the Shaffer Gas Co., Conneaut. Survivors include his widow, Dr. Bertha Elizabeth Hunt Shaffer, three brothers and three sisters.

Donald DaCosta Shira, M.D., LaRue; Ohio State University College of Medicine, 1914; aged 55; former member of the Ohio State Medical Association and the American Medical Association; died Dec. 30. A native of LaRue, Dr. Shira was the son of the late Dr. William Shira, who also practiced for many years in LaRue. Following his service as a captain in the Army medical corps during World War I, Dr. Shira became city health director of Akron, a position which he held for seven years. His premedical education had been obtained at Ohio Wesleyan University. Prior to his return to LaRue in 1941, Dr. Shira was affiliated for several years with the Ohio Public Health Association in Columbus. He is survived by his widow, one sister, and a brother.

Arthur Julius Skeel, M.D., Cleveland; University of Wooster, Medical Department, Cleveland, 1897; aged 68; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 8. Dr. Skeel's death ended a long career devoted to improvement in maternal and infant health. Head of the obstetrics division of St. Luke's Hospital, Cleveland, Dr. Skeel founded that hospital's obstetrical out-patient dispensary, which was Cleveland's first and one of the first in the United States. He was a former president of the Cleveland Academy of Medicine and also of the Ohio Obstetric Society. He founded the Cleveland Obstetric Society. He was a Fellow of the American

College of Surgeons and a member of the American Association of Obstetricians and Gynecologists. A frequent contributor to medical journals, Dr. Skeel was also a medical educator having held the professorship of obstetrics at the Cleveland College of Physicians and Surgeons before it was merged with Western Reserve University School of Medicine. Surviving him are his widow, a daughter, and two sons.

Forrest Ray Stewart, M.D., Ironton; Ohio State University College of Medicine, 1917; aged 54; member of the Ohio State Medical Association and the American Medical Association; died Jan. 18. Long active in civic affairs, Dr. Stewart was a member of the House of Representatives, 95th Ohio General Assembly, at the time of his death, and he had also been a member of the 94th General Assembly. In the current Legislature he was chairman of the House Health Committee, and in the previous session he was a member of that committee. In these capacities he devoted himself unstintingly to forwarding the interests of the medical profession and public health generally. While a medical student, Dr. Stewart enlisted in the Army medical reserve corps and served as a medical officer in World War I. He was a charter member of the American Legion, and is credited with having been chiefly responsible for the establishment of Frank J. Goldcamp Post, Ironton. Dr. Stewart began the practice of medicine in Ironton in 1919, and a few years later he moved to Waterloo, near his birthplace. In 1927 he returned to Ironton and entered practice with Dr. George G. Hunter, who also served with him in the Ohio Legislature. He was active in fraternal affairs, being a 32nd Degree Mason and a member of the Elks and the Eagles. He was also a Rotarian and a member of the United Commercial Travelers. Surviving are his wife, a son, Robert, on whose 20th birthday the doctor's death occurred, his mother, a brother, and a sister.

Frank Louis Stillman, M.D., Columbus; Bellevue Hospital Medical College, New York, 1881; aged 83; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 23. Dr. Stillman retired several years ago after a practice of 57 years, most of which was devoted to the specialty of eye, ear, nose, and throat. He was a native of Cincinnati. Following his graduation from medical school, he studied in London, Freiburg, and Vienna. He was formerly on the staffs of Grant and St. Francis Hospitals, Columbus, and was once on the faculty as a lecturer in the sciences at Ohio Wesleyan University. There are no immediate survivors.

Edward K. Wolfe, M.D., Palouse, Wash.; Physio-Medical College of Indiana, Indianapolis,

1898; aged 72; died at his home in early December. A native of Warren County, Dr. Wolfe was buried near Newtonsville. He is survived by his wife, a daughter, two sons, and two brothers, all of whom live in the West.

William Cary Vigor, M.D., New California; Columbus Medical College, 1884; aged 82, former member of the Ohio State Medical Association and the American Medical Association; died Dec. 21. Dr. Vigor began his study of medicine under the preceptorship of his uncle, Dr. H. E. Cary, of Prosperity, Pa., and later under his brother, the late Dr. F. A. Vigor, of New Dover, Ohio. He first practiced two years in Minnesota and then returned to Ohio in 1887 to settle in New California. One other brother, Dr. J. F. Vigor, was also a physician, as was his father, the late Dr. Henry Vigor, of Etna. He is survived by his wife and three daughters.

John Rush Warren, M.D., Marietta; Ohio State University College of Medicine, 1917; aged 50; died October 15. Dr. Warren had practiced in Marietta since 1921, and was of the third generation of physicians in Washington County, his father and grandfather having practiced medicine there. He was a member of the Masonic Lodge and the Methodist Church. His widow, his mother, a son, a brother and a sister survive.

Edward G. Weadock, M.D., Lima; University of Michigan Medical School, Ann Arbor, 1900; aged 66; member of the Ohio State Medical Association and the American Medical Association; died November 22. A native of Lima, Dr. Weadock practiced there for 40 years. He was affiliated with the Veterans of Foreign Wars. Surviving are his widow, a daughter, and a sister.

Harro Woltmann, M.D., Mansfield; University of Michigan Medical School, Ann Arbor, 1905; aged 60; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Dec. 27. Dr. Woltmann, a Fellow of the American College of Physicians, was former chief of staff at Mansfield General Hospital and was primarily responsible for the establishment of Mansfield's diagnostic chest clinic for high school children. He was active in civic affairs, being a charter member of the Rotary Club in Mansfield. Surviving him are his widow and two daughters.

Yellow Springs—Dr. Geneva Shong-Rothmund has been named school physician for the Springfield public schools.

Wilmington—Dr. R. W. DeCrow has been reappointed health commissioner of Clinton County for two years.

Ohio State May Be Asked to Train Officers in Medical Specialties

The College of Medicine at Ohio State University is one of several schools selected by the Army for intensive six-week and 12-week training courses for medical officers in various specialties, according to newspaper reports from Washington early in January. Officials of the College had not been officially notified of the selection, however.

It is planned, the newspaper reports said, to train Army medical corps officers in such specialties as tropical medicine, neurosurgery, maxillo-facial surgery, thoracic surgery, orthopedic surgery, anesthesiology, roentgenology, and other similar fields in which there is now a shortage of specially trained personnel in the medical corps.

The courses are to be started in the immediate future, the articles said, and will be completed by June 30.

A special course in pathology for Army medical officers was instituted at the College of Medicine in 1942 and probably furnished the pattern on which the new short courses will be planned. It is expected that, throughout the United States as a whole, from 200 to 400 medical officers will be trained in each of the special courses.

Canadian Medical Society and The Government Confer on Sickness Insurance

The movement for sickness insurance in Canada has progressed to the point of discussions between the government and the Canadian Medical Association, according to an article in *The Journal of the American Medical Association* based on reports from Canada.

The Manitoba Medical Association, according to the article, recently adopted the following resolution:

"That we instruct our representative on the executive committee of the Canadian Medical Association we are in favor of the medical profession in Canada cooperating with the government in devising a scheme to provide the benefits of modern medicine for all citizens of Canada whose income is not sufficient to provide it for themselves, and the basis of the scheme should be medicine as at present practiced—patients to have free choice of a regularly qualified and registered medical practitioner."

For the last year, the Manitoba Medical Association has been on record as favoring the establishment in Canada of a "surgical only" medical care plan and a complete coverage plan for families with less than \$2400 annual income. These plans have to be approved in principle by the physicians of Greater Winnipeg.

Fifty-Three Granted Licenses to Practice Medicine In Ohio At Recent Meeting of State Medical Board

LICENSES to practice medicine and surgery in Ohio were granted 25 medical school graduates, who passed the December examinations, at a meeting of the State Medical Board, January 6, at Columbus. Similar licenses were issued by the Board to 28 physicians, through endorsement from other states.

The Board also granted certificates to 6 osteopaths, 3 chiropractors, 5 mechanotherapists, 1 cosmetic therapist, 5 masseurs and 1 chiropodist.

The following officers were elected by the Board for the ensuing year: Dr. Thos. H. George, Cleveland, president; Dr. Claude V. Davis, Pennsville, vice-president; Dr. Dwight J. King, Findlay, treasurer. Other members of the Board are Dr. C. W. Waggoner, Toledo; Dr. J. H. J. Upham, Columbus; Dr. W. M. Hoyt, Hillsboro; and Dr. Ralph B. Taylor, Columbus. Dr. H. M. Platter, Columbus, was reappointed secretary and Professor S. E. Razor, entrance examiner.

The Board suspended for one year the certificate of Emerson N. Early, Dayton, to practice osteopathy and surgery, for the repeated use of drugs, other than anaesthetics and antiseptics, and the use of anaesthetic and antiseptic remedies in conditions not within the field of osteopathy and surgery, constituting gross immorality within the meaning of the statute.

The next examinations to be given by the Board will be held at Columbus, March 16-19.

The highest grade in the December medical examinations was made by Dr. Henry Leibundguth, Cleveland, a graduate of Hahnemann Medical College, Philadelphia, whose grade was 86 per cent. Two other graduates of Hahnemann, Dr. Sewell K. Starcke and Dr. Arthur T. Touzeau, Cleveland, were second and third, with grades of 85.9 and 85.7 per cent, respectively.

THOSE LICENSED

Those granted medical and surgical licenses following examination were: Donald F. Rowles, Lancaster, Ohio State University; Clarence J. Duby, Youngstown, Georgetown University; Joseph Wm. Burnett, Cleveland; William W. Faller, Cleveland, Thomas S. Jenike, Cincinnati, Henry Leibundguth, Cleveland; Edwin N. Reithmayer, Cleveland, William R. Roasberry, New London, John F. Roth, Findlay, Sewell K. Starcke, Cleveland, George A. Sudimack, Cleveland, John H. Tanous, Zanesville, Arthur T. Touzeau, Cleveland, Hahnemann Medical College; Benjamin J. Chazin, Dayton, Robert D. Cloyes, Cleveland, Long Island College of Medicine; Joseph B. Westhoven, Toledo, Loyola University; Benjamin J. Lockley, Cincinnati, Meharry Medical College; Shoichi Asahina, Toledo, Rush Medical College;

Paul S. LaFollette, Cleveland, Temple University; Kent L. Brown, Cleveland, Robert W. Edmonds, Cleveland, University of Buffalo; Wilda E. Raymon, Cleveland, University of Illinois; Charles R. K. Johnston, Cleveland, University of Toronto; Ernst N. Salomon, Cleveland, University of Berlin; Mere Wilensky, Cincinnati, University of Berne.

Licenses to practice medicine and surgery in Ohio, through endorsement, were granted to the following physicians: Grace Kaufman, Cincinnati, Indiana University; Wm. Daniel Hickerson, Cincinnati, University of Virginia; Frederick Knight, Grafton, University of Louisville; Wallace R. McClellan, Akron, Jefferson Medical College; James Mithoefer, Cincinnati, Harvard University; D. Douglas Odell, Bryan, Vanderbilt University; Wm. Allard Stoll, Portsmouth, University of Louisville; Wm. Kenneth Allen, Columbus, Meharry Medical College; Griffin A. Allen, Cleveland, Meharry Medical College; Catherine Parke Acklen Brown, Toledo, University of Michigan; Everett Freeman Conlogue, Dayton, Boston University; Samuel Elgart, Cincinnati, Tufts Medical College; James Arthur Eyres, Canton, University of Oxford, England; Mary J. F. Fortney, Uhrichsville, Keokuk Medical College; Ernst Gehrels, Chicago, Ludwig Maximilian University, Munich, Germany; Gwyn Forbes Haig, Cuyahoga Falls, University of Illinois; Frank H. Harms, Akron, University of Chicago; David E. Jones, Worthington, University of Louisville; Wm. Howard Morrison, Dayton, Hahnemann Medical College; George A. Nicoll, Dayton, University of Chicago; Erich Otten, Toledo, Rush Medical College; James Wm. Scudder, Columbus, Hospital College of Medicine, Louisville, Ky.; Arden Glenn Steele, Cincinnati, Northwestern University; Frederick Eastland Steele, Cleveland, University of Oregon; Reynolds Wayne Wade, Toledo, St. Louis University; Jalo Aatos Kauppinen, Toledo, Harvard University; J. Alton Wilson, Akron, Baylor University; Norman Shepherd Wright, Missillon, University of Louisville.

Oxford—Dr. H. A. Moore is the new health commissioner of Butler County.

Massillon—New staff officers of City Hospital are: Dr. O. Whitlaw Show, president; Dr. Roy H. Clunk, vice-president; and Dr. H. S. Myers, secretary.

Lima—"Military Medical Milestones" was the topic of discussion at a meeting of the Torch Club. The discussion leaders were Dr. Edward B. Pedlow and Dr. T. T. Sidener.

Congressional Agenda Must Be Watched; Action of the Last Session on Medical and Health Proposals Reviewed

THE Seventy-Eighth Congress of the United States now in session undoubtedly will have before it for consideration many measures relating to public health and medicine. The attention of members of the Congress will be focused sharply on questions relating to the war. For that reason other matters may be given only secondary consideration. Because of this, there is the danger that some measures which should not be enacted will slip through unless the physician-constituents of the legislators keep themselves (and their congressmen and senators) fully informed and register objections when necessary.

From time to time *The Journal* will present information on pending bills and this information may be used by physicians in conferring with Ohio's representatives and senators at Washington.

SUMMARY PRESENTED

Following is a brief summary of the action taken by the Seventy-Seventh Congress which expired on December 16, 1942, on medical and health measures, based in part on information supplied by the Bureau of Legal Medicine and Legislation of the American Medical Association:

The bill that was introduced to protect diabetic patients from impure insulin became a law. Under this law, insulin will be distributed under regulations promulgated by the Federal Security Agency. The enactment of this legislation became necessary because of the expiration of the insulin patent under which the purity and potency of insulin has heretofore been regulated.

Proposals were submitted to the Congress to authorize the expenditure of federal funds to investigate the cause of encephalitis lethargica, to provide better facilities for the treatment of cancer and tuberculosis, to authorize the United States Public Health Service to conduct investigations in relation to dental diseases, and to effect a better control of occupational diseases in general and silicosis in particular but none of these bills was enacted.

LOANS FOR STUDENTS

Federal funds, to the extent of \$5,000,000, were made available for loans to students pursuing accelerated medical courses and certain other designated technical courses. Likewise additional funds were made available to the United States Public Health Service for the training of nurses to augment the supply depleted by the demands of the military program.

Numerous bills were submitted to broaden the field of operation of the Social Security Act. None of these received favorable consideration. Late in the session Representative Eliot introduced his bill to amend and extend the provisions of the Social Security Act to include, among other things, sickness and hospitalization benefits.

No action was taken on the bill and it died in the House Committee on Ways and Means.

The Congress took no action on bills to establish a Chiropody Corps in the Medical Corps of the Army and to require the appointment of a chiropodist in each base hospital or training camp. Meeting similar fates were proposals to establish a Pharmacy Corps in the Army, to place a registered pharmacist in charge of army dispensaries and to appoint an officer of the Veterinary Corps as assistant to the Surgeon General of the Army with the rank of Brigadier General. During the early days of the Congress legislation was proposed to open the ranks of the Army Medical Corps to graduates of unapproved medical schools but no action was taken on it.

CHIROPRACTIC BILL SHELVED

Efforts were made by the chiropractors to secure the enactment of the Tolan bill to amend the United States Employees' Compensation Act so as to authorize chiropractors to treat beneficiaries of the act. This legislation died on the calendar of the House of Representatives. The osteopaths sought for recognition at the hands of Congress and were successful to the extent that the Surgeon General of the Army was **authorized** to appoint osteopaths as interns in army hospitals and to the extent that **authorization** was included in a bill providing appropriations for the Navy Department for the use of funds "for the pay of commissioned medical officers who are graduates of reputable schools of osteopathy." No osteopath has been appointed as an intern in an army hospital nor are osteopaths eligible for appointment in the Medical Corps of the Navy. The authorizations given by the Congress are **permissive** in form only.

While the so-called Wagner-George hospital construction bill received no consideration by the Congress, the Lanham bill became a law by virtue of which considerable federal funds were made available for the construction, in distressed areas, of needed public works, including hospitals, health facilities and clinics. Under this legislation, hospitals, clinics and other health facilities were augmented in many States in areas where existing facilities had proved totally inadequate to serve the influx of population due to defense activities. Additional funds, too were made available to the Veterans' Administration, \$4,557,000 to be exact, for major reconditioning, replacements and new construction of hospitals and domiciliary facilities for veterans.

CHILD HEALTH PROGRAM

The President submitted to the Congress a recommendation for such additional appropriations as the Children's Bureau might need during the emergency for allotment to the States for maternal and child welfare purposes. Some of this money, it was contemplated, was to be used in providing medical, hospital, obstetric and pediatric care for the wives and children of men in military service. Companion bills were introduced to effectuate this recommendation but Congress failed to act on them. The Children's Bureau did, however, set aside a part of its regular ap-

propriations for allotments to the States to provide the indicated services for the wives and children of servicemen.

A bill proposing to establish a Federal Department of Health in which could be combined the public health activities carried on by the various branches of the Government failed of enactment. Likewise no action was taken on another bill, sponsored by the Federal Security Agency, to effect a reorganization of the United States Public Health Service.

During the closing days of the Congress legislative action was completed on a Treasury Department initiated measure to regulate the growing of opium poppy in the United States and to provide for the manufacture of opium from the plants.

MORE PAY IS VOTED

Another measure enacted increases the pay, allowances and rank of the Army and Navy Nurse Corps and authorizes the employment by the military establishment of and accords a military status to female dietetic and female physical therapy personnel. This law, too, authorizes the employment of other technical and professional female personnel in categories required for duty outside the continental United States.

The Congress took one more step looking toward the provision of adequate housing for the Army Medical Library when it authorized an additional appropriation for the purchase of a site for the building.

The Soldiers' and Sailors' Civil Relief Act was variously amended to provide additional civil relief for persons in military service. Of particular interest to the medical profession is a provision in the amendatory act under which leases for office space entered into by persons who thereafter go into military service may be cancelled.

REVENUE ACT CHANGES

The new Revenue Act will greatly increase the tax burden of physicians as it will other federal income taxpayers. It does not effect any changes in the deductions that a physician may claim on account of professional activities. It does impose an obligation on physicians who have in their employ persons receiving wages in excess of \$12 a week a duty of withholding the victory tax. The new act eliminates an injustice that has obtained for a number of years in the manner in which outstanding accounts on the books of a taxpayer at the time of his death have been treated for income tax purposes. Hereafter such unpaid accounts will not be considered as part of the income of the decedent for the year of death, as has heretofore been the case, but will be taxable when paid, as a part of the income of the person who receives the money. A provision in the new law authorizes a taxpayer to deduct amounts expended for medical, dental and hospital care to the extent that such expenses exceed 5 per cent of the net income of the taxpayer but not in excess of \$2,500 in case of the head of a family, or \$1,250 in case of other individual taxpayers.

Additional funds were made available to the United States Public Health Service for a continuation of a program to provide reserves of blood plasma in hospitals.

Among the other bills of general applicability that failed of enactment was the so-called Capper-Epstein health insurance bill, proposals to establish a system of federal medical academies, to provide compensation for air raid wardens and

other civilian defense workers, to create a national physical fitness institute, to provide for programs of physical education and for vocational rehabilitation, to provide for the appointment of women physicians in the Medical Corps of the Army, to confer on the United States Public Health Service additional duties with respect to the prevention of water pollution, to provide medical and hospital treatment and domiciliary care for members of the WAACS and to veterans of the present war, to provide workmen's compensation for employees of carriers engaged in interstate transportation by motor vehicles, to amend the Longshoremen's and Harbor Workers' Compensation Act so as to provide among other things for the selection by the injured employee of his own physician and to establish in the Labor Department a bureau for the welfare of the deaf.

Traffic Deaths and Accidents Show Big Decrease

Accident records compiled by the Division of Traffic and Safety of the State Department of Highways for the first nine months of 1942 show that traffic deaths reported on state highways outside municipalities now total 421 as compared to 634 deaths for a similar period in 1941, a decrease of 34 per cent.

For the first nine months of 1942, a total of 8822 traffic accidents have been reported on rural state highways as compared to 11,449 accidents for the same period in 1941. This decrease in accidents, amounting to 23 per cent, is comparable to the 20 per cent reduction in motor vehicle travel on rural state highways.

While favorable trends in both accidents and fatalities can be attributed to a reduction in motor vehicle travel, it is evident that lower vehicular speeds have also been an important factor, particularly in reducing the severity of accidents.

At the end of nine months last year, there were 200 fatal accidents caused by excessive speed; for the same period this year, speed has been responsible for 97 fatal accidents, or a reduction of 51 per cent. Thus, lower speeds as a tire-saving measure have also been a life-saving measure. If the present rate of decrease in rural traffic fatalities continues for the balance of 1942, there will be approximately 300 fewer deaths this year on state highways outside municipalities.

Cleveland—Dr. Joseph B. Stocklen has been appointed tuberculosis controller of Cuyahoga County.

Zanesville—Dr. Beatrice T. Hagen has been re-appointed health commissioner of Muskingum County.

Mingo—Dr. C. E. Thompson was renamed Champaign County health commissioner.

Sidney—Dr. G. J. Nordenbrock, St. Marys, is the new health commissioner of Shelby County.

Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D.,
CINCINNATI)

ADAMS

Officers of the Adams County Medical Society for 1943 are: Dr. R. B. Ellison, Peebles, president; Dr. R. L. Lawwill, Seaman, vice-president; Dr. Hazel L. Sproull, West Union, secretary-treasurer; Dr. Samuel C. Clark, Cherry Fork, legislative committee chairman and war participation committee chairman; Dr. R. C. Wenrich, Winchester, delegate, and Dr. F. C. Leeds, Winchester, alternate.—O. T. Sproull, M.D., retiring secretary.

BUTLER

All officers of the Butler County Medical Society were re-elected at its annual dinner meeting Dec. 16 at the Anthony Wayne Hotel, Hamilton. They are: Dr. Fred W. Brosius, president; Dr. E. T. Storer, vice-president; Dr. Mabel Gardner, secretary-treasurer; Dr. C. T. Atkinson, delegate; all of Middletown; and Dr. Harry Lowell, Hamilton, alternate.—News clipping.

CLINTON

Dr. W. R. DeCrow, Clinton County health commissioner, discussed functions of state and local health departments at the regular luncheon meeting of the Clinton County Medical Society at the General Denver Hotel, Wilmington, Jan. 4. Dr. W. Kelley Hale reported on the meeting of the Radiological Association of North America, which he had attended.—News clipping.

Officers of the Clinton County Medical Society for 1943 are: Dr. W. Kelley Hale, president; Dr. R. H. Vance, vice-president; Dr. R. W. Decrow, secretary-treasurer and legislative committee chairman; Dr. V. E. Hutchens, war participation committee chairman; Dr. Robert Conard, delegate; and Dr. Elizabeth Shrieves, alternate; all of Wilmington.—James E. Rose, M.D., retiring secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs in January:

Jan. 5.—“The Advantages of Proper Early Treatment of Face and Jaw Injuries” by Dr. Vilray P. Blair, professor emeritus of clinical surgery at Washington University School of Medicine, St. Louis.

Jan. 19.—Dr. Jonathan Forman, Columbus, editor of *The Journal* spoke on “The Future of Medical Practice in America.” His paper showed the relation of medical practice to the social evolution symbolized by the war.

HIGHLAND

Officers of the Highland County Medical Society for 1943 are: Dr. J. C. Larkin, Hillsboro, president; Dr. J. D. McBride, Hillsboro, vice-president; Dr. W. B. Roads, Hillsboro, secretary-treasurer; Doctor Larkin, legislative committee chairman; Doctor McBride, war participation committee chairman; Dr. H. W. Chaney, Sugar Tree Ridge, delegate; and Dr. J. H. Frame, Highland, alternate.—W. B. Roads, M.D., secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CHAMPAIGN

Officers of the Champaign County Medical Society for 1943 are: Dr. D. C. Houser, president; Dr. E. D. Buhrer, president-elect; Dr. Ansel Woodburn, secretary-treasurer; Doctor Houser, chairman of the legislative committee; Dr. M. C. Houston, war participation committee chairman; Doctor Houser, delegate; and Dr. E. R. Earle, alternate; all of Urbana.—Ansel Woodburn, M.D., secretary.

CLARK

Dr. William P. Ultes and Dr. H. S. Milligan, both of Springfield, have been elected president and secretary, respectively, of the Clark County Medical Society.—H. S. Milligan, M.D., secretary.

GREEN

Dr. H. H. Wagner, Dayton, talked about “Gynecological Problems” at the meeting of the Greene County Medical Society held Jan. 7 at the county courthouse, Xenia.—News clipping.

MIAMI

Officers of the Miami County Medical Society for 1943 are: Dr. M. C. Kiser, Tipp City, president; Dr. H. W. Kendell, Covington, vice-president; Dr. G. A. Woodhouse, Pleasant Hill, secretary-treasurer; Dr. I. C. Kiser, Piqua, legislative committee chairman; Dr. J. F. Beachler, Piqua, war participation committee chairman; Doctor Woodhouse, delegate; and Dr. E. T. Pearson, West Milton, alternate.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Meeting Jan. 8 in the society's auditorium, the Montgomery County Medical Society presented a program on aviation medicine, which was in charge of medical officers from Patterson Field.

Officers of the society for 1943 are: Dr. R. K. Finley, president; Dr. T. C. Sheridan, vice-president; Dr. N. E. Leyda, secretary; Dr. A. D. Cook,

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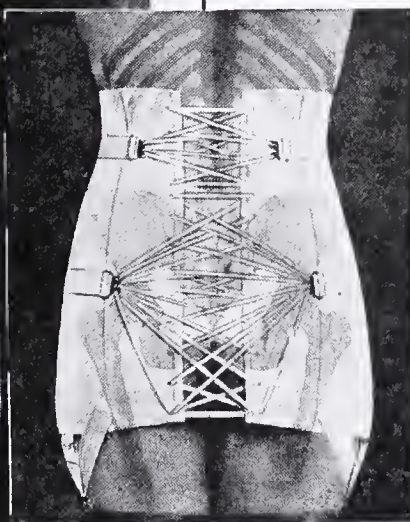
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treasurer; Dr. R. D. Dooley, legislative committee chairman; Dr. Wallace E. Prugh, war participation committee chairman; Dr. A. W. Carley, Dr. R. S. Binkley, and Dr. M. R. Haley, delegates; and Doctor Dooley, Dr. E. M. Smith, Dr. Melvin Oosting, and Dr. W. E. Dapp, alternates; all of Dayton.—Mrs. Marie T. Yoder, executive secretary.

PREBLE

Officers of the Preble County Medical Society for 1943 are: Dr. G. W. Flory, Eaton, president; Dr. C. E. Newbold, Eaton, vice-president; Dr. F. M. Hearst, West Alexandria, secretary-treasurer; Dr. C. E. Newbold, Eaton, legislative committee chairman; and Dr. Carle W. Beane, Eaton, war participation committee chairman.—F. M. Hearst, M.D., secretary.

SHELBY

Officers of the Shelby County Medical Society for 1943 are: Dr. Harry E. Crimm, Sidney, president; Dr. Vernon W. LeMaster, Sidney, vice-president; Dr. F. R. McVay, Botkins, secretary-treasurer; Dr. A. B. Gudenkauf, Sidney, legislative committee chairman; Doctor LeMaster, war participation committee chairman; Dr. R. W. Alvis, Sidney, delegate; and Dr. H. C. Clayton, Sidney, alternate.—F. R. McVay, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

Officers of the Allen County Medical Society for 1943 are: Dr. W. H. Beery, president; Dr. H. L. Stelzer, vice-president; Dr. Chester Badertscher, secretary; Dr. J. R. Tillotson, treasurer; Dr. E. C. Yingling, delegate; and Dr. J. R. Johnson, alternate; all of Lima.—Chester Badertscher, M.D., secretary.

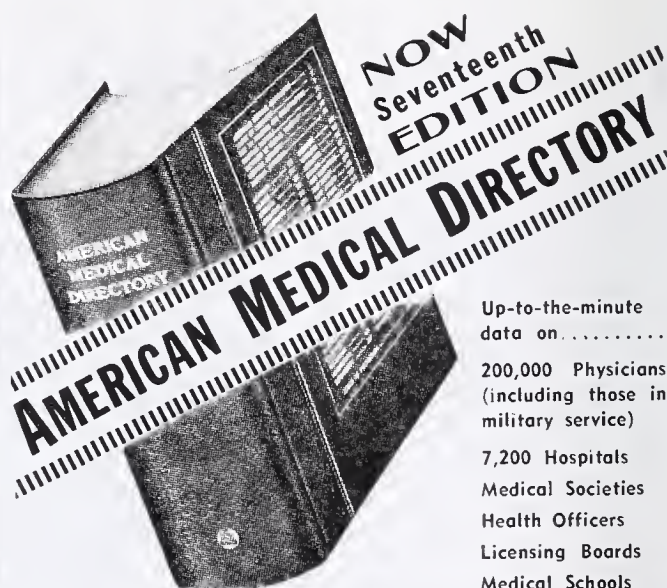
The Women's Auxiliary to the Allen County Medical Society sponsored a public meeting in Lima Central High School auditorium, on Nov. 5, at which Dr. W. W. Bauer, Chicago, director of the American Medical Association's Bureau of Health Education, was speaker.—News clipping.

HANCOCK

Officers of the Hancock County Medical Society for 1943 are: Dr. Frank M. Wiseley, president; Dr. E. E. Rakestraw, vice-president; Dr. Lena S. Enright, secretary; Dr. Earl J. Thomas, treasurer; Dr. D. B. Biggs, legislative committee chairman; Dr. O. P. Klotz, war participation committee chairman; Doctor Wiseley, delegate; and Dr. J. M. Firmin, alternate; all of Findlay.—Lena S. Enright, M.D., secretary.

HARDIN

Officers of the Hardin County Medical Society for 1943 are: Dr. H. E. Gibson, Kenton, president;



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Dr. F. M. Elliott, Ada, vice-president; Dr. R. H. Zeis, Kenton, secretary-treasurer; Doctor Elliott, chairman of the legislative and war participation committee; Dr. R. G. Schutte, Kenton, delegate; and Dr. W. P. Rickert, Kenton, alternate.—R. H. Zeis, M.D., secretary.

LOGAN

Officers of the Logan County Medical Society for 1943 are: Dr. R. A. Firmin, Zanesfield, president; Dr. F. B. Kaylor, Bellefontaine, vice-president and secretary-treasurer; Dr. J. P. Harbert, Bellefontaine, legislative committee chairman; and Dr. C. K. Startzman, Bellefontaine, war participation committee chairman.—F. B. Kaylor, M.D., secretary.

MARION

Officers of the Marion Academy of Medicine for 1943 are: Dr. F. L. Thomas, president; Dr. Thomas H. Sutherland, vice-president; Dr. F. W. Rea, secretary-treasurer; Dr. J. G. McNamara, delegate; and Dr. H. K. Mouser, alternate; all of Marion.—F. W. Rea, M.D., secretary.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

HENRY

Officers of the Henry County Medical Society for 1943 are: Dr. J. J. Harrison, Napoleon, president; Dr. Thomas Quinn, Napoleon, vice-president; Dr. J. R. Bolles, Napoleon, secretary-treasurer and legislative committee chairman; Dr. B. L. Johnson, Deshler, war participation committee chairman; Doctor Harrison, delegate; and Dr. T. P. Delventhal, Napoleon, alternate.—J. R. Bolles, M.D., secretary.

LUCAS

Mr. Grove Patterson, editor of the *Toledo Blade*, was guest speaker at the 41st annual dinner meeting of the Toledo Academy of Medicine held Jan. 8 at the Toledo Club. New officers were installed and annual reports were presented.

The Sections on Medicine, Surgery, and Eye, Ear, Nose and Throat of the Academy met on Jan. 15, 22, and 29, respectively, at Academy headquarters.—Bulletin.

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PAULDING

Officers of the Paulding County Medical Society for 1943 are: Dr. A. F. Burson, Oakwood, president; Dr. R. J. Dillery, Paulding, vice-president; Dr. D. E. Farling, Payne, secretary-treasurer; Dr. K. C. Evans, Payne, legislative committee chairman; Dr. T. P. Fast, Grover Hill, war participation committee chairman; Dr. L. R. Fast, Paulding, delegate; and Doctor Farling, alternate.—A. F. Burson, M.D., president.

WILLIAMS

Officers of the Williams County Medical Society for 1943 are: Dr. H. R. Mayberry, Bryan, president; Dr. M. R. Kittredge, Bryan, vice-president; Dr. H. J. Luxan, Montpelier, secretary-treasurer and war participation committee chairman; Dr. H. L. Prouty, legislative committee chairman; Dr. H. W. Wertz, Montpelier, delegate; and Dr. C. G. Goll, Stryker, alternate.—H. J. Luxan, M.D., secretary.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND

LAKE

A number of first-of-the-year business items were discussed at the regular meeting of the Lake County Medical Society held Jan. 12 at Lake County Memorial Hospital, Painesville. Communications from the State Association were read and discussed.

Officers of the Society for 1943 are: Dr. Benjamin Fisher, Fairport Harbor, president; Dr. Edward S. Jones, Painesville, secretary-treasurer; Dr. J. V. Winans, Madison, legislative committee chairman; Dr. V. N. Marsh, Painesville, war participation committee chairman and delegate; and Doctor Jones, alternate.—E. S. Jones, M.D., secretary.

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for Experimental Biology and Medicine, held Jan. 8 at the Institute of Pathology, the following papers were presented:

"Cortin-Like Material in Urine" by Dr. R. A. Shipley, R. I. Dorfman, Ph.D., N. Horwitt, Ph.D., and R. Fish, M.S., of the Brush Foundation.

"Anti-Oxydents in the Vitamin B Complex" by Dr. Paul Gyorgy and Dr. Rudolf M. Tomarelli.

"Energy Changes in Fourier Transforms of the Electroencephalogram during Sleep" (illustrated with motion pictures) by Dr. F. A. Gibbs, C. E. Henry, Ph.D., and J. R. Knott, Ph.D., of the Brush Foundation, Boston City Hospital, and the University of Iowa.

Col. Harold W. Jones, librarian, Army Medical Library, Washington, spoke on "Caricatures, Especially Medical Caricatures" at the annual meeting of the Cleveland Medical Library Association, Jan. 15, at Allen Memorial Library.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Officers of the Columbiana County Medical Society for 1943 are: Dr. John A. Fraser, East Liverpool, president; Dr. E. P. Neitz, Wellsville, vice-president; Dr. A. J. Knapp, East Liverpool, secretary-treasurer; Dr. Paul N. Beaver, Leetonia, delegate; and Dr. M. D. McCutcheon, East Liverpool, alternate.—Guy E. Buyers, M.D., retiring secretary.

MAHONING

"Some Phases of Traumatic Surgery" was the subject of Dr. J. Huber Wagner, Pittsburgh, when he addressed the Mahoning County Medical Society at its meeting Jan. 19 at the Youngstown Club, Youngstown. Dr. Wagner is chief surgeon for several large Pittsburgh steel mills and other industrial firms.—Bulletin.

Officers of the Society for 1943 are: Dr. William H. Evans, president; Dr. Elmer H. Nagel, president-elect; Dr. George M. McKelvey, secretary; Dr. Saul Tamarkin, treasurer; Dr. A. B. Sherk, legislative committee chairman; Dr. P. J. Mahar, war participation committee chairman; Dr. E. J. Reilly, Dr. J. N. McCann, and Dr. W. M. Skipp, delegates; and Dr. J. B. Birch, Dr. P. J. McOwen, and Dr. P. J. Fuzy, alternates; all of Youngstown. Doctor Nagel will preside in the absence of Doctor Evans, who is in military service, according to the Society's by-laws.—Mary B. Herald, executive secretary.

PORTAGE

Dr. Robert Parker, associate professor of medicine, Western Reserve University School of Medicine, spoke on virus pneumonia at the meeting of

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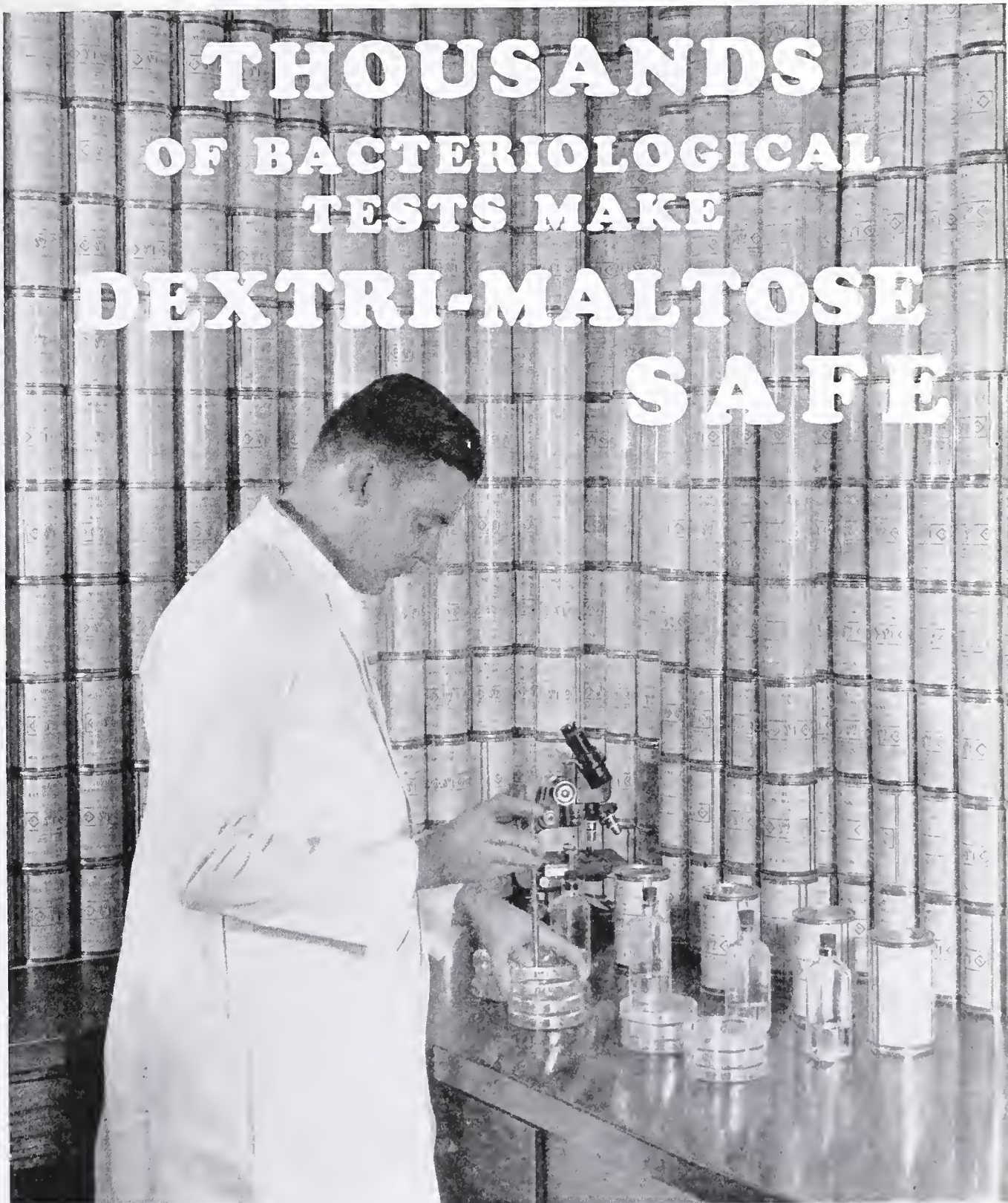
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the Portage County Medical Society Jan. 4 at Robinson Memorial Hospital, Ravenna. The following committee chairman were appointed by the president, Dr. John R. Turner: Dr. S. U. Sivon, legislative; Dr. P. H. Zinkhan, war participation; and Dr. J. S. Deyell, industrial medicine; all of Ravenna.—E. J. Widdecombe, M.D., secretary.

STARK

"The Modern Management of Pneumonia" was the subject discussed by Dr. Gerald S. Shibley, associate clinical professor of medicine, Western Reserve University School of Medicine, at the meeting of the Stark County Medical Society, Canton Elks Club, Jan. 14.—C. F. Schmitt, M.D., secretary.

SUMMIT

Dr. James T. Villani, of the staff of Edwin Shaw Sanitarium, Akron, spoke on "Silicosis and Other Pneumoconioses" at the meeting of the Summit County Medical Society Jan. 5 at the Akron City Hospital Nurses' Home.—Bulletin.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

COSHOCTON

A motion picture titled "Sutures Since Lister" was shown at the meeting of the Coshocton County Medical Society Jan. 5 in Coshocton.—News clipping.

Officers of the Coshocton County Medical Society for 1943 are: Dr. D. S. McDill, president; Dr. J. A. Funk, vice-president; Dr. H. W. Lear, secretary-treasurer; Dr. E. M. Wright, legislative committee chairman; Dr. Floyd W. Craig, war participation committee chairman; Dr. A.

P. Magness, delegate; and Dr. J. G. Smailes, alternate; all of Coshocton.—H. W. Lear, M.D., secretary.

JEFFERSON

Officers of the Jefferson County Medical Society for 1943 are: Dr. Albert C. Sunseri, president; Dr. J. Ellison Gamble, vice-president; Dr. D. S. Greenberg, secretary-treasurer; Dr. E. J. C. Sander, legislative committee chairman; Dr. F. B. Harrington, war participation committee chairman; and Dr. S. J. Podlewski, delegate; all of Steubenville.—D. S. Greenberg, M.D., secretary.

TUSCARAWAS

Officers of the Tuscarawas County Medical Society for 1943 are: Dr. Henry B. Kistler, Newcomerstown, president; Dr. M. W. Everhard, New Philadelphia, vice-president; Dr. D. M. Ceramella, New Philadelphia, secretary-treasurer; Dr. J. A. McCollam, Uhrichsville, legislative committee chairman; Dr. B. A. Marquand, New Philadelphia, war participation committee chairman; Dr. Jay W. Calhoon, Uhrichsville, delegate.—D. M. Ceramella, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

LICKING

Officers of the Licking County Medical Society for 1943 are: Dr. James F. Busby, president; Dr. P. H. Zinkhan, legislative; Dr. D. A. Skinner, vice-president; Dr. R. G. Plummer, secretary-treasurer; Dr. J. R. McClure, legislative committee chairman; Doctor Plummer, war participation committee chairman; Dr. A. J. Tronstein, delegate; and Dr. J. N. Cross, alternate, all of Newark.—R. G. Plummer, M.D., secretary.



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ADDRESS

GALLIA

Officers of the Gallia County Medical Society for 1943 are: Dr. N. Howard Foster, president; Dr. Paul C. Foster, secretary-treasurer; Dr. Charles E. Holzer, legislative committee chairman; Dr. George G. Kineon, war participation committee chairman; Dr. F. W. Shane, delegate; and Dr. N. Howard Foster, alternate; all of Gallipolis.—Paul C. Foster, M.D., secretary.

GUERNSEY

Dr. O. R. Jones, Cambridge, discussed vaginal hysterectomy at the meeting of the Guernsey County Medical Society, Jan. 7.—M. S. Lawrence, M.D., secretary.

Ninth District

(COUNCILOR: GILBERT MICKLETHWAITE, M.D., PORTSMOUTH)

LAWRENCE

Officers of the Lawrence County Medical Society for 1943 are: Dr. H. S. Allen, president; Dr. V. V. Smith, vice-president; Dr. H. W. Johnson, secretary-treasurer; Dr. O. H. Henninger, legislative and war participation committees' chairman; Doctor Smith, delegate; and Doctor Johnson, alternate; all of Ironton.—H. W. Johnson, M.D., secretary.

PIKE

Officers of the Pike County Medical Society for 1943 are: Dr. Robert T. Leever, Waverly, president; Dr. I. P. Seiler, Piketon, vice-president; Dr. Mack E. Moore, Piketon, secretary-treasurer; Dr. W. L. McCaleb, Beaver, legislative committee chairman; Dr. R. M. Andre, Waverly, war participation committee chairman; Doctor Seiler, delegate; and Dr. L. E. Wills, Waverly, alternate.—Mack E. Moore, M.D., secretary.

SCIOTO

Highlights of the annual dinner meeting of the Hempstead Academy of Medicine, held Dec. 14 at American Legion Hall, Portsmouth, were recorded and the records were sent to members of the Academy in the armed forces. Speaker at the meeting was the Rev. Carroll Lewis, minister of Hyde Park Community Methodist Church, Cincinnati. The Academy members also witnessed a motion picture depicting war activities at the Ohio State University.—News clipping.

New officers of the Academy, elected at the meeting, are: Dr. D. C. Coleman, Lucasville, president; Dr. A. B. Mills, Portsmouth, vice-president; Dr. G. E. Obrist, Portsmouth, secretary-treasurer; Dr. J. S. Rardin, legislative and war participation committees' chairman; Dr. D. A. Berndt, Portsmouth, delegate; and Dr. H. A. Schirman, Portsmouth, alternate.—George D. Blume, M.D., retiring secretary.

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1. Fabricant, M. D.: "Nasal Medication," Williams and Wilkins Company, October, 1942.

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Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D.,
COLUMBUS)

DELAWARE

Officers of the Delaware County Medical Society for 1943 are: Dr. G. E. Robinson, Ostrander, president; Dr. F. V. Miller, Delaware, vice-president and war participation committee chairman; Dr. F. M. Stratton, Delaware, secretary-treasurer; Dr. E. V. Arnold, Delaware, legislative committee chairman; Dr. M. S. Cherington, Delaware, delegate; and Dr. W. E. Borden, Delaware, alternate. F. M. Stratton, M.D., secretary.

FAYETTE

Officers of the Fayette County Medical Society for 1943 are: Dr. W. D. Maag, Jeffersonville, president; Dr. M. N. Reiff, Washington C.H., vice-president; Dr. Orlyn Wiseman, Jeffersonville, secretary-treasurer and war participation committee chairman; Dr. E. H. McDonald, Washington C.H., legislative committee chairman; Dr. J. H. Persinger, Washington C.H., delegate; and Dr. A. D. Woodmansee, Washington C.H., alternate.—Orlyn Wiseman, M.D., secretary.

FRANKLIN

The Columbus Academy of Medicine presented the following programs at the Columbus Art Gallery in January:

Jan. 4—"Physical Medicine in General Practice" by Dr. David E. Jones, newly appointed Professor of Physical Medicine at the Ohio State University College of Medicine.

Jan. 18—"The Ten Most Significant Recent Contributions to Obstetric Literature" by Dr. Dana Cox, assistant professor of obstetrics at the Ohio State University College of Medicine.—Bulletin.

Officers of the Academy for 1943 are: Dr. George T. Harding, president; Dr. W. D. Inglis, president-elect; Dr. Horace B. Davidson, secretary-treasurer; Dr. John M. Thomas, legislative committee chairman; Dr. William B. Morrison, war participation committee chairman; Dr. Leslie L. Bigelow (deceased), Dr. Russel G. Means, Dr. Charles W. Pavey, Dr. Edwin J. Stedem, Doctor Thomas, and Dr. Harry E. LeFever, delegates; and Dr. Louis Jentgen, Dr. Huston Fulton, Dr. John F. Mitchell, and Dr. Roy Secrest, alternates; all of Columbus.—Stanley E. Mauck, executive secretary.

KNOX

Officers of the Knox County Medical Society for 1943 are: Dr. George B. Imhoff, Mt. Vernon, president; Dr. E. V. Ackerman, Fredericktown, vice-president; Dr. F. C. Anderson, Mt. Vernon, secretary-treasurer; Dr. C. D. Conard, Mt. Vernon, legislative committee chairman; Dr. J. Sha-

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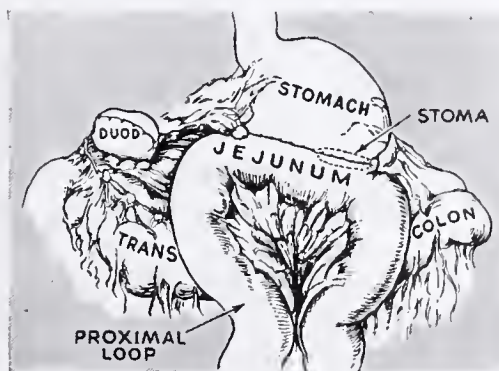
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Dose: One or two tablespoonfuls every two hours, during the active stage of the ulcer. Later in the course of management, three tablespoonfuls with meals and at bedtime, or two tablespoonfuls six times daily with and between meals.

1. Fauley, G. B.; Freeman, S.; Ivy, A. C.; Atkinson, A. J.; and Wigodsky, H. S.; Aluminum Phosphate in the Therapy of Peptic Ulcer, Arch. Int. Med. 67: 563-578 (March) 1941.
2. Marshall, S. F., and Devine, J. W. Jr.; Gastrojejunal Ulcer, S. Clin. North America, 743-761 (June) 1941.

*Reg. U. S. Pat. Off.



mansky, Mt. Vernon, war participation committee chairman; Dr. James F. Lee, Mt. Vernon, delegate; and Doctor Anderson, alternate.—George B. Imhoff, M.D., president.

MADISON

Dr. Robert S. Postle, London, has been selected to serve as president and secretary-treasurer of the Madison County Medical Society for 1943.—Robert S. Postle, M.D., secretary.

PICKAWAY

Officers of the Pickaway County Medical Society for 1943 are: Dr. D. V. Courtright, president; Dr. G. W. Heffner, vice president and alternate; Dr. Ned B. Griner, secretary-treasurer; Dr. V. D. Kerns, war participation committee chairman; and Dr. A. D. Blackburn, delegate; all of Circleville.—Ned B. Griner, M.D., secretary.

ROSS

Officers of the Ross County Medical Society for 1943 are: Dr. O. L. Iden, president; Dr. E. Paul Shepard, vice-president; Dr. Ralph W. Holmes, secretary-treasurer; Dr. L. T. Franklin, legislative committee chairman; Dr. Walter C. Breth, war participation committee chairman; Dr. O. P. Tatman, delegate; and Dr. Loy E. Hoyt, alternate; all of Chillicothe.—Ralph W. Holmes, M.D., secretary.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

Annual "Ladies' Night" dinner meeting of the 8 at the Ashland Country Club. Motion pictures of sports and travel, taken by various members of the society, provided the program.—L. H. Martin, M.D., secretary.

HOLMES

Officers of the Holmes County Medical Society for 1943 are: Dr. Neven P. Stauffer, Killbuck, president; Dr. A. J. Earney, Millersburg, secretary-treasurer; Dr. A. T. Cole, Millersburg, legislative committee chairman; Doctor Earney, war participation committee chairman; Dr. J. C. Elder, Millersburg, delegate; and Dr. J. M. Jones, Millersburg, alternate.—A. J. Earney, M.D., secretary.

HURON

Officers of the Huron County Medical Society for 1943 are: Dr. C. B. Thomas, president; Dr. R. A. Blackman, vice-president; Dr. J. A. Sipher, secretary-treasurer; Dr. G. F. Linn, legislative committee chairman; and Dr. R. L. Morse, war participation committee chairman; all of Norwalk.—C. B. Thomas, M.D., president.



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LORAIN

Dr. John A. Toomey, Cleveland, discussed "The Differential Diagnosis of Acute Meningeal Irritations" at the regular monthly meeting of the Lorain County Medical Society, Jan. 12 at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

Officers of the Society for 1943 are: Dr. P. C. Colegrove, Oberlin, president; Dr. Myron F. Kishman, Lorain, vice president; Dr. L. H. Trufant, Oberlin, secretary-treasurer; Dr. George D. Nicholas, Elyria, legislative committee chairman; Doctor Trufant, war participation committee chairman; Dr. Charles R. Meek, Lorain, and Dr. Waite Adair, Lorain, delegates; and Dr. Russell M. Arnold, Avon Lake, and Dr. Virgil Hart, Oberlin, alternates.—L. H. Trufant, M.D., secretary.

RICHLAND

Capt. Paul A. Blackstone, Mansfield physician now an Army medical officer, discussed "Army Life at the Lockbourne Air Base" at the regular meeting of the Richland County Medical Society held Jan. 21 at Mansfield General Hospital.—John F. McHugh, M.D., secretary.

Officers of the Richland County Medical Society for 1943 are: Dr. E. D. Dowds, Shelby, president; Dr. A. C. Biddle, Mansfield, vice-president; Dr. J. F. McHugh, Shelby, secretary-treasurer; Dr. C. R. Keller, Mansfield, chairman of legislative and war participation committees; Dr. J. S. Hattery, Mansfield, delegate; and Dr. L. C. Nigh, Mansfield, alternate.—John F. McHugh, M.D., secretary.

WAYNE

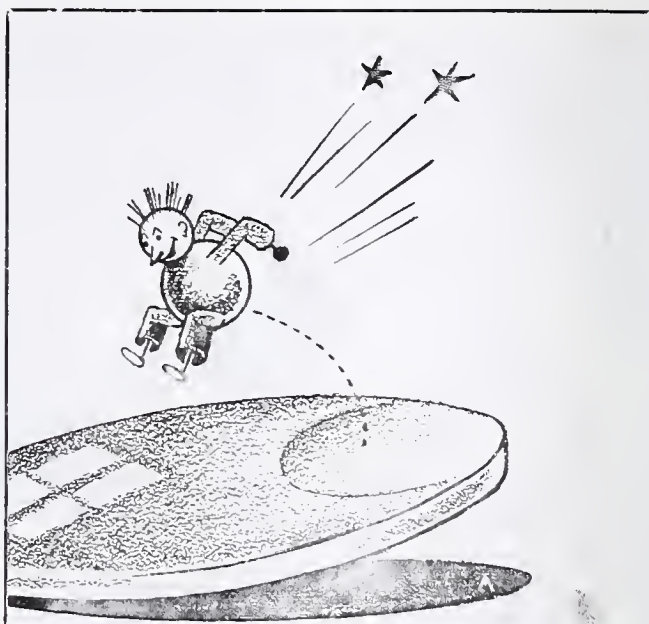
Dr. I. E. Henry and Dr. J. T. Fulton, representatives of the Division of Dental Hygiene, Ohio Department of Health, addressed a joint meeting of the Wayne County Medical Society and the dentists of the county on the growth, development, and care of teeth on Dec. 17 in Wooster.

Officers of the medical society, elected at that meeting, are: Dr. Jean S. Douglas, Wooster, president; Dr. Eva G. Cutright, Wooster, vice-president; Dr. R. C. Paul, Wooster, secretary-treasurer, war participation committee chairman, and delegate; Dr. George H. Irvin, Orrville, legislative committee chairman; and Doctor Douglas, alternate.—R. C. Paul, M.D., secretary.

Middletown—Dr. C. J. Baldrige, health commissioner of Butler County for 20 years, resigned, effective January 1.

Wooster—"Choosing Your Food Wisely", was the topic discussed by Dr. Eva G. Cutright at a meeting of the Business and Professional Women's Club.

Van Wert—Dr. J. P. Sampsell is the new city health commissioner.



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* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

Do You Know - - -

Membership in the Ohio State Medical Association reached an all-time high on December 31, 1942, with a total of 6,726 members. Of these, 1,373 were members whose dues had been waived or refunded because of military service. Total membership in the Association for the past nine years follows: 1941—6,604; 1940—6,475; 1939—6,388; 1938—6,128; 1937—5,945; 1936—5,628; 1935—5,488; 1934—5,361; 1933—5,187.

* * *

Dr. Ben R. McClellan, Xenia, former President of the Ohio State Medical Association, was recently presented a scroll in recognition "of his outstanding service to the community and to his fellowmen", by the local Rotary Club, of which he is a charter member and past-president.

* * *

A plan has been worked out in Cleveland whereby special ration cards will be issued to mothers whose small babies need canned evaporated milk. The Cleveland Academy of Medicine, City Health Department, and representatives of local stores arranged the plan in collaboration with various government agencies.

* * *

Dr. Henry M. Goodyear, associate professor of otology, University of Cincinnati College of Medicine, spoke on "Practical Considerations in the Daily Practice of Otology", at a meeting of the Indianapolis Otolaryngological Society, January 14.

* * *

The Council of the West Virginia State Medical Association recently adopted a resolution calling for the introduction into the next session of the legislature of a bill providing for the organization and operation of non-profit medical service or hospital service corporations in that state.

* * *

A resolution asking that women physicians be commissioned in the U. S. Army and Navy, on the same basis as men, was recently adopted by the board of the American Medical Women's Association at a meeting in Cincinnati. The resolution was sent to President Roosevelt, Secretary of War Stimson, Secretary of Navy Knox, with a copy to Mrs. Roosevelt.

* * *

There were 320,793 claims filed with the State Industrial Commission during 1942, the largest number ever filed in one year. This figure represents a 12.2 per cent increase over 1941, when 286,010 claims were filed.

* * *

Dr. J. S. Rardin, Portsmouth, a past-president of the Ohio State Medical Association, celebrated his 80th birthday on last Christmas Day.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

March, 1943

No. 3

JONATHAN FORMAN, M.D., *Editor*

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Can Foods Supply Our Need for B-Complex Vitamins?

MARTHA KOEHNE, B.A., M.A., Ph.D.

MUCH has been accomplished in the last few years to make the general public aware of the close relationship between nutrition and health. Unfortunately however, many persons, both lay and professional, feel that vitamin intake is synonymous with good nutrition. Manufacturers and purveyors of vitamin pills and concentrates, advertisers of certain food products, and faddists often present so much misinformation to the public that many are confused about how to acquire a state of good nutrition. Interesting facts about the science of nutrition and available money with which to purchase food will not improve national nutrition until meals eaten in homes and elsewhere are properly planned, prepared and served. That the past five years have brought some improvement in food selection is shown¹ by the fact that 1940-41 consumption of fresh vegetables exceeded that in 1935-36 by 12 to 14 per cent, canned vegetables by 5 to 8 per cent, citrus fruits by 30 to 40 per cent, egg and meat by 8 to 10 per cent and dairy products by 5 per cent. Undoubtedly part of this improvement has been brought about by better economic conditions throughout the nation since 1939.

Surgeon General Parran says² that the science of nutrition is the same age as that of aviation but that we have applied our knowledge of aviation with marked success, while failing to apply our knowledge of nutrition to the improvement of human health. He says that while there have been more changes in human food habits in the past 50 years than through the

The Author

● Miss Koehne, (Ph.D. Yale University) is nutritionist, Ohio Department of Health.

whole space of history, many have been undesirable changes, such as:

1. Wide-spread use of highly milled cereals since 1874. "Even the self-respecting weevil cannot live on the feeble staff of life represented by plain white flour."
2. Universal use of various other types of processed foods and changes in cookery methods.
3. Greatly increased use of sugar.
4. Popular demand for vitamin pills.

Dr. Parran neglects to cite a number of advantages available to those living now, such as the greater availability of fresh foods of all kinds everywhere throughout the nation due to modern methods of transportation and refrigeration.

Floore has aptly said³: "The art of maintaining good nutrition is all-encompassing, for it involves agriculture which creates, commerce which exchanges, economics which controls, science which directs, industry which produces and experience which teaches."

Good nutrition depends not only upon eating the right kind and amount of food but on its digestion, assimilation and utilization, which are in turn influenced by the state of health of the person concerned and his metabolic processes. Climate, composition of the soil, food supply,

¹Submitted for publication at request of The Editor.

TABLE NO. 1

B-Vitamins Found in Some Commonly Used Foods

(Values expressed as milligrams in the amount of food indicated.)

	Size of Portion	Thiamine	Riboflavin	Niacin*
Milk, fresh	½ pint	.10 to .16	.47 to .58	1.92
Cheese, yellow or American	1⅛" cube	.01	.13 to .18	
Cottage	1 rounded Tbs.	+	.09	
Citrus fruit juice	1 small glassful	.05 to .14	.02 to .10	.21
Tomato juice	1 small glassful	.07 to .11	.04 to .06	.58
Spinach, cooked	½ cup	.10 to .15	.30 to .40	.72
Turnip tops, cooked	½ cup	.14 to .18	.75	
Broccoli	½ cup	.08 to .10	.20 to .50	
Green beans	½ cup	.05 to .09	.06 to .15	.65
Green peas	½ cup	.27 to .50	.20 to .25	
Carrots	⅔ cup	.06 to .14	.06 to .12	1.47
Sweet potatoes	1 small	.09 to .13	.08 to .10	.67 to 1.29
Peaches	1 large	.02 to .07	.045	.95
Apricots, dried	4 to 6 halves	.02 to .04	.07 to .09	
Prunes, dried	4 with juice	.09 to .11	.02 to .32	
Turnips, cooked	½ cup	.06 to .09	.05 to .10	
Onions, winter	2 to 3 small	.02 to .10	.03 to .06	.10
Cauliflower	½ cup	.13 to .20	.15 to .22	.57
Cabbage, cooked	⅔ cup	.07 to .14	.06 to .13	.28
Head lettuce	3 leaves	.02 to .06	.05 to .12	
Apples	2¼" diam.	.02 to .06		.50
Pears	1 medium	.03 to .10	.02 to .15	.14
White potatoes	1 average size	.09 to .16	.04 to .08	1.18
Egg, whole	1 average size	.05 to .07	.10 to .21	.03
yolk	1 average size	.05 to .07	.06 to .12	.005
white	1 average size	trace	.04 to .09	.025
Beef, round	4 x 4 x ½"	.23	.26	7.5
Pork, loin	1 large serving	1.52	.24	8.0
Poultry, light meat	2 sl. 3¼x2½x¼"	.16	.08	7.2
dark meat	3 sl. 3¼x2½x¼"	.24	.26	6.5
Salmon, canned	4 x 3 x ¾"	+	.20 to .25	13.0
Oysters	4 medium	.20 to .30	.45	.66
Liver—beef, veal, pork, lamb	3 x 3 x ¾"	.38 to .52	2.7 to 3.3	15.0 to 19.0
Kidney, beef	½ cup cubed	.27	2.0	10.0
Heart, beef	½ cup cubed	.68	.88	7.0
Navy beans, cooked	½ cup	.12 to .18	.094	.55
Soy beans, cooked	½ cup	.36	.30	.75
Peanut butter	1 Tbs.	.08 to .10	.06	.84
Rolled oats, cooked	½ cup	.10 to .23	.03 to .06	.34 to .48
White rice, cooked	½ cup	trace	0	2.07
Corn flakes	1½ cups	trace	0	0
Whole wheat bread, 100%	1 slice	.04 to .145	.015 to .022	.33 to .83
White bread, not enriched	1 slice	.01 to .025	.033	.165 to .314
White bread, enriched	1 slice	.06 to .11	.044 to .088	.22 to .44
Yeast, brewer's dry	1 Tbs.	.45	.16 to .20	6.0
compressed, high-vitamin	1 cake	.36 to 1.8	.40 to 1.00	6.0 to 9.0

*Data not available for many foods

geographic and racial customs, and the economic level of the population are all of basic importance. A working knowledge of nutrition should not only be acquired by women and children but also by men. Much attention is being paid today to methods of improving the food habits of industrial workers because of the importance of good nutrition in preventing absenteeism and in maintaining morale and efficiency, thereby increasing the output of war materials.

The B-complex vitamins are being especially exploited today among all types of people, thiamin, for example, being often called the morale vitamin. This paper will be concerned with a discussion of the occurrence of thiamin, riboflavin and niacin in foods, precautions to be taken to insure their retention in the foods we eat, together with a discussion of whether or not foods can be depended upon for these vitamins in patients who have to be on restricted diets

for long periods of time. There will also be a brief discussion of our prospects for getting these vitamins in the food rationing period we are facing.

Table I gives the value of a few commonly used foods as sources of the three vitamins in the B group known to be needed by human beings. The data are taken from references 4, 5, 6 and 7 (the last two references being the source of most of the niacin figures.) The figures are for uncooked foods, even though, as in the case of many vegetables and fruits, the measure indicated is for the cooked food. In the case of cereals the figures are for one ounce of dry cereal, even though the measure given is for this amount as ordinarily cooked.

The ranges in value indicated for most foods show the variation to be expected because of genetic differences and of variable growing conditions, such as climate, rainfall and composition

TABLE NO. 2

Sample Menu for One Day

(Supplies approximately 2500 Calories and 75 to 80 grams protein.)

	Size of Portion	Thiamine	Riboflavin	Niacin
BREAKFAST				
Citrus fruit juice	1 water glassful	.10 to .28	.04 to .20	.42
Oatmeal, cooked	$\frac{1}{2}$ cup	.10 to .23	.03 to .06	.34 to .48
Milk	$\frac{1}{3}$ cup	.03 to .05	.16 to .19	.064
Toast, enriched white bread	2 slices	.12 to .22	.09 to .18	.44 to .88
Butter	1 Tbs.	0	0	0
Coffee	1 cup	0	0	0
Cream, thin	1 Tbs.	.005	.03	0
Sugar (coffee and cereal)	2 rounded tsp.	0	0	0
Meal total		.36 to .78	.35 to .66	1.26 to 1.84
LUNCH				
Scrambled eggs	2 eggs	.10 to .14	.20 to .42	.06
Bacon	2 to 3 strips	.02	.01 to .02	
Waldorf salad: lettuce	1 medium leaf	.01 to .02	.02 to .04	
apple	1 small	.02 to .05	.03	.45
celery	$\frac{1}{4}$ cup	.01 to .02	.01 to .02	
Eng. walnuts	4 to 6 meats	.04 to .09		
mayonnaise	$\frac{1}{2}$ Tbs.	trace	trace	
Bread, 100% whole wheat	2 slices	.08 to .29	.03 to .04	.66 to 1.66
Butter	1 Tbs.	0	0	0
Milk	$\frac{1}{2}$ pint	.10 to .16	.47 to .58	1.92
Prunes	4 medium	.07	.12	
Meal total		.45 to .86	.89 to 1.27	1.36 to 2.36
DINNER				
Baked potato	1 medium	.13 to .24	.06 to .12	1.77
Roast veal	1 sl. $2 \times 2\frac{3}{4} \times 1\frac{1}{8}$ "	.21	.24	8.00
Broccoli	$\frac{1}{2}$ cup	.08 to .10	.20 to .50	
Raw carrot strips	5 to 6 pieces	.02 to .04	.02 to .04	.49
Bread, white enriched	2 slices	.12 to .22	.09 to .18	.44 to .88
Butter (vegetables-bread)	$1\frac{1}{2}$ Tbs.	0	0	0
Pumpkin pie	$\frac{1}{8}$ pie (9")	.08	.30	.065 (est.)
Coffee, black	1 cup	0	0	0
Sugar	1 rounded tsp.	0	0	0
Meal total		.64 to .89	.91 to 1.38	10.77 to 11.2
Grand total for day		1.45 to 2.5	2.15 to 3.3	13.4 to 15.4
Day's requirement for average adult, moderate activity, new yardstick of good nutrition		1.5	2.2	15.0
Proportionate amount of day's intake of these vitamins furnished in above day's menu:				
Bread and cereals		29. to 38.	11. to 14.	15. to 25.
Egg and meat		24. to 17.	23.2 to 23.6	63. to 52.
Milk and cream		13. to 10.7	38.6 to 31.	2.4 to 2.

of the soil. Inasmuch as the food we eat today is brought to our markets from many parts of the country, these differences are minimized and average values are reasonably safe to use.

Table II is a sample menu for one day, showing how successfully such a menu meets the amount of these three vitamins recommended by the Food and Nutrition Committee of the National Research Council⁴ as the desirable daily intake for an average adult. Special attention is called to the data at the bottom of this table showing the proportional amount of each of these vitamins supplied by: 1. breads and cereals used; 2. egg and meat; 3. milk and cream. These figures show that, when enriched or whole grain bread and cereal are used exclusively and in at least the amounts indicated, they make the largest contribution to the thiamin intake, while milk and cream furnish the highest proportion of riboflavin, egg and meat the most niacin.

The question is frequently asked whether or

not dark bread is always superior in nutritive value to enriched white bread. Beginning January 17, 1943, by order of Food Administrator Wickard, all commercial white bread must be enriched. Unfortunately this directive does not apply to white flour sold. Housewives who use Ohio flour, which is excellent all-purpose flour, in making their own bread will have unenriched white flour in most areas of the State, since, with very few exceptions, Ohio millers are not enriching their white flour. Popular demand can force a correction of this situation.

Unless the dark bread wrapper states that the bread is 100 per cent whole wheat, it will contain from 30 to 70 per cent white flour that is usually not enriched. Seldom is high-vitamin yeast used in its preparation and usually less milk is used in making dark bread than in making white, with the result that many commercial dark breads are inferior to enriched white bread in nutritive value. Therefore it

would be wise to inquire from your baker how his dark bread is made. If you prefer the flavor of dark bread, as many do who have become accustomed to eating it, shop around until you can find a variety made with at least 70 per cent whole wheat, cracked wheat or graham flour. Housewives can make their own dark bread, using not less than equal amounts of whole wheat and enriched white flour and milk in place of water. Many object to the crumbly texture of 100 per cent whole wheat bread; mixture with significant amounts of white flour improves the texture of dark bread, while the flavor and nutritive value will be higher than that of enriched white bread. Tobey⁸, of the American Institute of Baking, says that only 0.33 per cent of the bread sold in this country is 100

Thiamin is more easily destroyed by heat than riboflavin while niacin is the least affected by heat:

In all cases heat destruction is minimum when there is water present, and maximum with dry heat such as roasting or baking in uncovered pans, and frying. (However, unless the water in which the foods are cooked is used, there will seem to be as high a loss in B-vitamins due to moist cooking as with dry heat, as illustrated in Table III for beef heart and kidney.)

If the liquid in which the food is cooked is acid, there is least destruction due to heat, the more acid it is the less the heat loss. If the liquid is alkaline, as is true when baking soda has been added, losses in cooking will be maximum. In the case of dry legume seeds (navy, lima, soy beans, etc.) small amounts of baking soda may be added to cooking water without causing destruction of these three vitamins; ap-

TABLE III
Losses in Thiamin Caused by Cookery Processes

Vegetables, cereals and legumes (9)			Meats (7)		
	Cooking time (min.)	Losses (%)		Cooking time (min.)	Losses (%)
Carrots—pressure cooker	11—15	0	Broiling—beef	20	50
boiled	23	0	Frying—beef	20	0—30
Potatoes—baked	63	16	veal	20	44
boiled (pared)	36	20	ham	15	0
Spinach—boiled	9	22	smoked ham	15	12
Green peas—boiled	12	9	pork loin	25	35—53
boiled with NaHCO ₃	12	22	liver	10	23
Snap beans—boiled	40	18	Roasting—beef	120—150	55
boiled with NaHCO ₃	40	59	veal	120	55
Navy beans—boiled	83	0	pork loin	80—105	38—50
boiled with NaHCO ₃	53	0	Stewing—beef heart	60	57*
Rolled oats—double boiler	120	0	beef kidney	45	40*
Whole wheat—double boiler	30	0	*cooking water discarded causing most of this loss)		
Whole wheat bread—baked	45	14			
Baking bread (10)			Toasting bread (10)		
Whole loaf: crumb		0	Not toasted		
bottom crust		34	Toasted light		11
top crust		13	As usually toasted		15
			Toasted dark		25

per cent whole wheat and only 7 per cent contains 50 or more per cent of whole wheat flour.

HOW CAN WE SECURE MAXIMUM RETENTION OF THESE THREE VITAMINS IN FOODS WE EAT?

We must recognize that it is not merely the inclusion of certain food items that is important but their actual nutritive value as consumed.

Thiamin (B₁), riboflavin (B₂) and niacin (nicotinic acid) all are soluble in water. Because of this fact the following precautions should be taken in handling foods:

When cooking fruits, vegetables and meats in water, start with minimum amounts of cooking water and use this cooking water subsequently. Do not discard it.

Wash fruits and vegetables thoroughly before peeling, then do not let them stand in water after they are peeled or cut into small pieces.

Blanching vegetables or fruits before canning or quick freezing causes loss of some of these vitamins, the smaller the size of the pieces the greater the loss. Whenever possible fill up the cans with the blanching water, and use all the liquid around canned foods.

parently in dry seeds these vitamins do not leach out into the cooking water readily.

Table III indicates the extent to which the above cooking conditions affect the thiamin content of common foods. Much less work has been done on the effect of cooking process on riboflavin and naicin.

Storage causes little loss of these three vitamins. Practically the only losses in canning and freezing are in the preliminary blanching process. Sun-drying may be accompanied by loss in riboflavin since it is sensitive to light.

Thiamin and riboflavin in boiled yeast are more efficiently used by the body than in raw yeast, apparently because of the more complete digestion of the cooked yeast cells¹¹.

When these vitamins are taken in pills or capsules, it is better to take them with meals because the higher concentration of acid in the digestive tract during active digestion protects the vitamins from destruction. When taken between meals or before going to bed the more

alkaline conditions prevailing in the digestive tract will reduce the effectiveness of the dosage¹².

VALUE OF VITAMIN PILLS AND CONCENTRATES
COMPARED WITH NATURAL FOODS AS SOURCES
OF B VITAMINS

The new yardstick of good nutrition to which reference has already been made¹, specifies the daily need for thiamin, riboflavin and niacin, regardless of age, in the respective ratio of 1:15:10, in direction proportion to the energy needs. At the University of Wisconsin a study was recently made¹³ of 119 samples of commercial vitamin pills and concentrates from 36 manufacturers. The composition of 15 representative samples is reported below:

TABLE IV.

Sample number.	Thiamin (figures represent mgm. per pill or capsule)	Riboflavin	Niacin
2	0.3	0.12	0.8
3	0.2	0.3	3.0
4	0.45	0.08	1.2
8	1.5	0.37	10.0
11	0.3	0.1	
21	1.0	0.6	5.0
33	1.2	0.4	10.0
37	1.8	0.1	10.0
39	1.0	1.0	0.15
48	1.0	1.2	12.0
67	1.0	1.0	10.0
76	1.5	0.5	25.0
90	5.0	2.0	20.0
102	1.5	1.0	20.0
110	0.15	0.005	0.005

A glance at the above data will reveal how few of these representative preparations even approach the desired ratio or concentration of the three vitamins under consideration. Recognizing this state of affairs, the Council on Pharmacy and Chemistry jointly with the Council on Foods and Nutrition of the American Medical Association have ruled¹⁴ that the composition of commercial B vitamin preparations should conform, in concentration, with standards set up for daily needs of 1.0 mg. thiamin, 2.0 mg. riboflavin and 10 mg. niacin per daily dose recommended. They cite a number of ways in which these concentrations may be attained.

Carlson says¹⁵: "There is today entirely too much blarney and ballyhoo about synthetic vitamin pills." If an apparent need for additional vitamins is due to faulty food selection, the diet will, undoubtedly, be deficient in a number of vitamins, not just one, as well as in certain minerals and sometimes in protein. Correcting the intake of B vitamins alone will not correct all of the dietary deficiencies. If the need seems to be due to faulty digestion, assimilation or utilization, the conditions responsible would, in all probability, affect all three of these vitamins since their solubilities are similar. By supplying only one vitamin, symptoms of deficiency of other food factors will become evident.

Vitamin pills or concentrates have a legitimate place in improving nutritional status but should be regarded by the lay public as medicines that are not taken unless prescribed by a physician who has made a careful study of the person and is convinced that he needs some supplementary vitamins either until he can adjust his diet satisfactorily or until bodily conditions permit more efficient utilization of vitamins from food sources. Vitamin D is the only commonly recognized vitamin that is not present in natural foods in sufficient amount to meet daily needs, even though the diet is wisely selected and properly prepared. In the case, however, of actual symptoms of deficiency of a given vitamin, much larger amounts are needed to effect a cure than can be supplied by natural foods and resort then must be had to properly compounded vitamin concentrates in the hands of physicians who thoroughly understand their use. When patients must be on restricted diets for a considerable length of time, physicians may have to prescribe certain synthetic vitamins or vitamin mixtures as well as other essential food factors that cannot be supplied by their food.

The Council on Foods and Nutrition and the Council on Industrial Health of the American Medical Association disapprove¹⁶ of mass indiscriminate administration of vitamin pills to industrial employees for the following reasons:

1. It is irrational therapeutically and hence has no place in a program aimed at securing industrial health.
2. It is unwise nutritionally because special vitamin preparations cannot take the place of valuable natural foods in producing good nutrition.
3. It is unsound economically because a good diet can provide all that vitamin pills have to offer and more too.

"At the present time there is no body of scientific information on which to base the recommendation that industry adopt this practice." The Councils do approve, however, of the use of vitamin concentrates on an individual basis after careful study of each group of workers.

A study was recently reported¹⁷ in one of the Army camps of the effect of vitamin supplementation on muscular activity, endurance, resistance to fatigue and recovery from exertion of a group of volunteers. The studies were carefully controlled and the conclusion was reached that healthy young men, expending 3700 to 4200 calories daily are not benefited by a daily supply of thiamin, riboflavin and ascorbic acid (vitamin C) in excess of the amount supplied by the Army Post ration of 1.7 mg., 2.4 mg. and 70 mg. respectively for these three vitamins.

According to another recent study¹⁸ there is no indication that either large doses of vitamin

C alone or of a mixture of vitamins A, C and D, and of thiamin, riboflavin and niacin have any effect on the number or severity of infections of the upper respiratory tract of young adults who were presumably healthy and on an adequate diet. Other investigators¹⁹ have presented evidence in support of the relationship between protein reserves and specific immunity to infection. This work is of special interest in view of the popular over-emphasis on the role of vitamins in promoting immunity, with the resulting popular underestimate of a liberal protein diet.

HOW INSURE ADEQUATE INTAKE OF THESE THREE VITAMINS BY PERSONS ON SPECIAL DIETS?

In these days when physicians responsible for the care of civilians are increasingly busy because of the large numbers of physicians now in the armed services, their attention to dietary matters must of necessity be centered largely on prescribing special diets. To prescribe such diets successfully, however, requires a thorough understanding of what constitutes a satisfactory diet for a well person. The whole trend of modern diet therapy is toward making special diets, for persons who must remain on such diets for many weeks, simple modifications of a normal diet. That disease can often be benefited by omission of certain foods has been accepted by physicians throughout the centuries. Newburgh²⁰ says, however, that far too many physicians have "unconcernedly omitted one food after another," in prescribing special diets, "wholly oblivious of a far more important fact, namely, that the sick man should receive a sufficient amount of each of those substances which every normal person must have to avoid disease." McLester²¹ says that illness is made worse by injudicious restriction of food and of the benefits accruing from a more abundant diet. He defines the optimum diet as "the diet which, both in sickness and in health, will meet but not exceed the person's caloric needs and which is designed to provide, as far as possible in liberal excess of today's calculated requirements, all nutritive essentials, notably proteins and vitamins." To this we may also add minerals.

DuBois²² classifies special diets roughly into three groups:

1. Those based on limitations of appetite due to serious acute illness or to surgery.
2. Those based on limitations of function of the gastro-intestinal tract "starting with bad teeth and ending with painful hemorrhoids."
3. Those based on limitations of metabolic capacity.

DuBois says, concerning the large number of special diets now in use: "Worthless drugs and worthless diets are expensive in time and money.

They are confusing and, worst of all, they divert attention from the principles of pharmacology and dietetics that are established on firm bases. If we can eliminate a large number of worthless special diets, the time and money that is saved can be employed in making the fewer diets better."

A brief discussion of dietary management in a few very common conditions follows:

1. **Obesity (Low Caloric Diet):** The desire to remain slender and the necessity for correcting existing obesity make the prescribing of low caloric diets, that are safe to follow, a frequent responsibility of the physician. Often, too, he must correct undesirable conditions that have developed as a result of self-restriction of food intake by patients.

Obese persons or those who wish to avoid obesity should eat three satisfying meals each day. Anti-obesity diets should contain medium amounts of carbohydrate and low amounts of fat (to enable excess body fat to be burned as fuel), together with generous amounts of protein (to make the diet more satisfying to the appetite)²³. Because of the necessity for restricting carbohydrates, selection should be limited to those carbohydrate-rich foods that are known to be high in vitamin and mineral values, such as whole grain or enriched bread and cereal foods, potatoes, other vegetables and fruits. Candy, highly sweetened desserts, non-enriched bread and cereals, and soft drinks must be eliminated from the diet. Food fat should be limited to small amounts of butter or fortified margarine used as spread and seasoning. A pint of milk should be part of the daily diet, skim milk containing half the caloric value of whole milk. Lean portions of meat; liver, kidney and heart; non-oily fish, poultry and eggs should be used as freely as one's economic level and the rationing board will permit.

What about the B-vitamins in such a diet? One would eat just one-third to one-half as much bread or cereal as shown in the meal outlined in Table II. This would result in a considerable drop in thiamin intake. However, this would be compensated for by doubling the intake of meat, with special attention being placed on organ meats and lean portions of pork (Table I). More liberal use of 5 and 10 per cent fruits and vegetables than included in Table II would increase the intake of thiamin from such sources. All of these changes would amply take care of riboflavin and niacin requirements (Table I).

2. **Allergy:** The number of foods to which persons may be allergic is practically all-inclusive, therefore only a few foods that most commonly cause allergic reactions will be considered, together with the effects that elimination of each from the diet would have on the adequacy of the

dietary regime, particularly with reference to B-vitamins.

a. **Wheat:** Because of the wide-spread use of wheat breads and of wheat flour in cookery, elimination from the diet is very difficult for those who must eat many meals away from home. Rye Krisp, commercial rye bread made entirely of rye flour (ordinary rye bread contains considerable white flour) and pumpernickel, as well as whole (water-ground) corn products containing no wheat flour may be used. Rice flour is available but is hard to get, quite expensive, and almost devoid of B-vitamins. Potato flour can be used in making sponge and angel food cakes where the large amount of egg present makes up for the lack of gluten in the potato flour. This flour may also be used in pastry and as a thickening agent. Excellent suggestions in wheatless cookery are found in reference 24. Table V gives the comparative values of common cereal grains as sources of B-vitamins, based on data in references 6 and 25.

TABLE V.

	Size of portion	Thiamin mgm.	Riboflavin mgm.	Niacin mgm.
Whole wheat	1 oz.	.11—.16	.03	1.5—2.1
Whole corn	1 oz.	.14	.04	.47—.78
Whole rye	1 oz.	.15	.04	.39
Rolled oats	1 oz.	.16	.03	.34—.48
Brown rice	1 oz.	.07	.02	2.07

No data are available for potato flour. Table I gives the values for raw potato. One can see, however, that judicious use of other whole grain cereals may compensate for B-vitamins normally consumed in whole grain or enriched wheat products (Table II).

b. **Milk:** Most persons who are allergic to milk can use evaporated milk successfully; others are able to take goat's milk which is now available dried and evaporated. In cases where none of these forms can be used and the patient reacts even to the slightest trace of milk in cooked foods, some calcium salt, such as diphosphate, lactate or gluconate can be prescribed together with directions for the use of extra meat, organ meat, etc. to compensate for vitamins ordinarily taken in milk and for the protein value of the amount of milk that should ordinarily be used daily.

Soy bean milk is frequently used by pediatricians as a substitute for cow's milk in feeding babies and young children who are allergic to milk. It may be modified in such a way as to make it a very effective product nutritionally²⁶.

c. **Egg:** This form of allergy, as well as those due to milk and wheat, makes it difficult for patients to eat away from home, inasmuch as eggs are used so often in cookery. When they have to be eliminated from the diet, protein and vitamin losses can be offset by more liberal use of organ meats, other meats and milk, although these foods will not take the place of the many palatable desserts ordinarily made with egg.

3. **Low Protein Diet:** Cutting down on protein intake, particularly meats, has been a common food restriction prescribed by physicians. Some of the conditions for which such diets have been prescribed in the past are pregnancy, fevers,

hypertension, old age, nephritis and nephrosis. Confining a patient to too small an amount of protein that is largely from plant sources merely means that he uses up part of his own tissue protein each day. He might better have eaten this amount of meat and thereby saved his strength! This principle applies even in nephritis when the end products of protein metabolism cannot be successfully excreted and accumulate in the blood. Protein intake should not go below two-thirds grams per kilogram desired body weight per day. When as little as this is used, over one-half should be taken from animal sources,—meat, fish, egg, poultry, and milk. Elimination of flesh foods is also very hard on the morale of the patient, besides being wasteful of tissue protein. All patients on low protein diets should have high carbohydrate diets in order to help prevent metabolism of body protein as much as possible.

The concensus of medical opinion today is in favor of normal protein intake in pregnancy, old age and hypertension, and of liberal intake in lactation, fevers and nephrosis, limiting a low protein diet to cases of acute conditions associated with mounting levels of non-protein nitrogen in the blood. Too long subsistence on a low protein diet because of poverty or illness, or insufficient protein intake in cases on increased need for protein, as in nephrosis (where so much is lost in the urine), fevers, pregnancy and lactation, results in lowered resistance and morale and often in nutritional edema. Levels of plasma protein and albumin should be closely followed when persons are on low protein diets. These levels should not be permitted to fall much below the normal averages of 4.4 per cent albumin and 7.0 per cent total protein. Levels below 2.5 per cent plasma albumin and 5.5 per cent total protein are invariably associated with marked edema. Elman²⁷, says: "Many formerly mysterious instances of failure of wounds to heal, disruption of abdominal incisions * * * are now realized to be manifestations of a deficiency in protein, particularly as it affects the serum albumin fraction of the blood."

On low protein diets the bread and cereal intake should not exceed the level shown in Table II; additional carbohydrate should be given in the form of jelly, marmalade and sugar. Citrus fruit, green and yellow fruits and vegetables, other fruits and vegetables should be used freely. Milk intake should be from one to two pints daily; egg, one daily; meat, one small average portion daily. Omit nuts and dry legume seeds and eat fats as desired. With judicious use of these foods, intake of the three vitamins under consideration should approximate the amounts indicated in Table II, sample diet. If the caloric intake should exceed 2500 calories, additional supply would probably have to come from a re-

liable form of vitamin pill or capsule, containing proportional amounts of the three as recommended in reference 15.

4. Diet for the Aged: Although feeding the aged is not fundamentally a diet therapy problem, it deserves special consideration because of the rapidly increasing proportion of our population belonging to this group. The statement has been made that by 1980 there will be $2\frac{1}{4}$ times as many persons past 65 years of age in this country as there are children under 5 years, whereas in 1930 the ratio was 1:2. Progress in infant feeding, in prevention and control of communicable disease, and in the science of nutrition are largely responsible for adding 11 years to life expectancy since 1900. Advances in the art and science of medicine are also operating to keep more and more people alive long enough to pass 65 years of age.

Tuohy²⁸ says: "Age is feared much more for the restrictions it may impose than the promise of death." Restrictions in activity and restrictions in food are especially resented. Tuohy also says: "The tea and toast schedule for grandma is outmoded. No old person is a walking museum—a holdover from last year's crop—and for the same good reason must not be treated like a barnacle on the ship of state." Thewlis²⁹ observes that constructive sympathy for the aged is lacking, that such sympathy is essential to their welfare and that the physician must be on guard at all times to be sure that aged persons get enough food. He states that old age is not a disease, neither does it respond to the same treatment given to children.

Old persons are frequently disturbed mentally and overanxious concerning digestion and elimination; many times lack of teeth or defective dentures prevent eating foods that are prepared for the rest of the family. They are susceptible to the teaching of faddists.

They need an optimum diet the same as younger persons, but one planned to suit their real physical and physiological handicaps. If they have always been accustomed to tea and coffee, the use of tobacco and alcohol, these should not be arbitrarily withdrawn except in emergency, but should be permitted in moderation. Extremes of work and idleness should be avoided and the amount of food eaten should be controlled by their weight record.

Except in case of definite pathology, the diet should follow the same pattern at that illustrated in Table II. In case of inability to tolerate roughage or to chew, raw fruits and vegetables may have to be replaced by stewed forms without hard skins or tough seeds, relying on larger amounts of citrus fruit juice and tomato juice for vitamin C. If stewed green or other vegetables or fruits contain too much roughage, per-

haps these elderly persons may have to have their portion rubbed through a sieve. In case of difficulty in chewing, meat may have to be ground or scraped except when flaky boneless fish or white meat of chicken are used.

WHAT CHANGES IN EATING HABITS WILL RATIONING BRING?

In the January 8 issue of *Life* appeared the following about rationing: "All of this is going to make life enormously more complicated for millions of Americans. Housewives who have enough trouble now figuring out their weekly food budgets will have to pay for many things twice—once with cash and once with ration stamps. Grocers and wholesalers will acquire still another bookkeeping headache. As for the frenzied economists, statisticians, lawyers, enforcement agents and assorted bureaucrats of the OPA in Washington, the job of figuring out point values and period stamp allotments is an open invitation to mass insanity. Nevertheless, the point system is regarded by experts who know about such things as the most practical rationing scheme yet devised."

Concerning sugar rationing, the Council on Food and Nutrition of the American Medical Association has said³⁰: "In view of the several considerations here recounted, it is the opinion of the Council that the present restrictions in the use of sugar will help improve the nutritive quality of American diets. From the health point of view, it is desirable especially to have restriction of such use of sugar as is represented by consumption of sweetened carbonated beverages and forms of candy which are of low nutritional value. The Council believes it would be in the interest of public health for all practical means to be taken to limit consumption of sugar in any form in which it fails to be combined with significant proportions of other foods of high nutritive value."

The public can get along very well on the amount of coffee now available and could draw in their coffee belts even tighter. After all, coffee has no nutritional value even though it does contain a great deal of vitamin Z (zest), that elusive vitamin that adds so much to human satisfaction with food.

Milk rationing, if it comes, will be hard to take from the standpoint of national nutrition. However, when some families who have been using little or no milk are told that they will be permitted to have a certain amount of milk, it may influence them to get it and use it—such is human psychology. The sale of whipping cream has been stopped to make available more fresh whole milk; the manufacture of butter may later be limited for the same reason. Too much skim milk has been wasted in the past. More com-

munities will have to conserve evaporated milk supplies by patterning after Cleveland, where the health department in cooperation with grocers, provides welfare centers, public health nurses and physicians with cards for distribution to families who must have evaporated milk for infant feeding.

We will never have legitimate cause for complaint as long as we are permitted as much as two pounds of meat per person per week. Families will have to watch point values of favorite cuts of meat closely, however, or they will think they have been cheated.

We can get along without certain fruits and vegetables that are more or less luxury items or that take so much hand labor to produce, as long as we have a satisfactory supply of citrus fruits and tomatoes, a reasonable variety of valuable green and yellow fruits and vegetables, plenty of potatoes, and a fair assortment of the old standbys among the other fruits and vegetables. More of us will have to have our own vegetable gardens this summer, but the work in the garden will be as good for us as the vegetables we produce. And we will have to stay home, anyway! We'll have to do more of our own canning and drying of such foods and develop our ingenuity in constructing storage pits for safe storage of those fruits and vegetables that can be kept most of the winter without canning. Persons who have frozen food lockers are very fortunate. If we have fewer cantaloupes and watermelons this summer, we must not complain. Our state of nutrition will not suffer.

SUMMARY

Data have been presented to show that persons who digest and assimilate their food normally and whose metabolic processes are normal, can secure all of the B-vitamins they need if they select their food wisely and if the food is properly prepared and served. This makes the use of vitamin concentrates unnecessary even among industrial workers who should certainly have a suitable diet. Also in many instances where special diets must be adhered to for long periods of time, judicious selection of food will provide these vitamins, as well as other dietary essentials, in adequate amount. All these facts, together with the restrictions we all face in the rationing program, make it even more advisable for everyone to acquire a practical working knowledge of nutrition, in order that each may accept necessary restrictions without fear of sacrifice to nutritional status.

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The Clinical Use of Mixtures of Insulins

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THE treatment of diabetes is a compromise between the ideal of an ever-normal blood sugar and that level of the blood sugars which can be achieved practically. While the actual criteria as to what constitute adequate treatment vary widely, yet the common purpose of most is to maintain the level of the blood sugar throughout the day within reasonable distances of normal.

This purpose was attained with the old or amorphous insulin (A. I.) only by means of several daily injections. That it reduced the number of necessary daily injections was the important advance made by the introduction of protamine zinc insulin (P. Z. I.). Unfortunately, however, even the results with this insulin fall too far short of the criteria of adequate treatment in a rather large percentage of diabetics. In other words, protamine zinc insulin must be supplemented by the use of other faster-acting insulins in better than one-third of the cases, and with this increase in the number of injections, part, though not all, of the superiority of protamine zinc insulin is lost.

There is, however, a possibility of combining an adequate control of diabetes with a one-daily-injection regime. The data given below show how this has been accomplished for all but a few of a series of 150 cases taking insulin. All of them have been followed for at least one year and most of them for much longer. All, too, are office patients in whom the sole purpose has been the adequate clinical control of their problem. No idea, then, of a scientific discussion of the action of insulins is intended, but only the method of handling the ambulant diabetic is considered.

CRITERIA OF ADEQUATE TREATMENT

For reasons gone into elsewhere by one of us (H.J.¹) all patients on the day of checking have the blood sugars taken three times, i.e., before each meal.

If all three blood sugars are below 180 mgms. per cent the patient is considered to be adequately controlled. This, however, requires some amplification, for usually only one of the blood sugars will approach the 180 mark, the other two being much lower. Furthermore, only in the older patients (40 years and over) are the blood-sugars allowed to stand near the upper limit, while in those under 40 years every effort is

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made to keep all three blood sugars below the 150 mgms. per cent.

This is illustrated in the table form below.

	Adequately Controlled Diabetics Blood Sugars in mgms. % at		
	8:00 A.M.	12:00 noon	5:00 P.M.
Under 40 years.....	94	150	122
Over 40 years	140	178	163

STATISTICS OF THE SERIES

Of the 150 patients, 140 or 93.5 per cent have been adequately controlled with only one injection of insulin daily.

Of the entire series 53 per cent (79 cases) received protamine zinc insulin alone, 38 per cent (57 cases) received a mixture of P.Z.I. and A.I., while 2.5 per cent (four cases) were given crystalline zinc insulin.

The remaining 6.5 per cent (10 patients) form a heterogenous group. Five of these had previously been on multiple injections and did not care to try the one-injection method. Two were receiving over 100 units of insulin daily, an amount which could not be given as one injection conveniently.

There remain, therefore, only three cases (2 per cent plus) who, after trial, could not be adequately controlled by the one injection regime.

RESULTS WITH PROTAMINE ZINC INSULIN

In the present series one daily injection of P.Z.I. has adequately controlled 53 per cent of the cases on insulin. This is only slightly higher than the figures (40 per cent-50 per cent) generally reported.

The diabetics who have been controlled in this way fall largely but not exclusively into either one or both of the following categories: a. mild

to moderate cases requiring 30 units or less per day; b. those who developed their diabetes after 40 years of age.

There remains, however 47 per cent of those on insulin who cannot be adequately controlled with protamine zinc insulin. The figures on an average and an extreme case of this 47 per cent are as follows:

		Blood Sugars in mgms. % at		
		8:00 A.M.	12:00 noon	5:00 P.M.
Average Case—W.L.	138	236	258	
Extreme Case—B.G.	39	294	405	

Such cases as these demonstrate very clearly why it is not sufficient to take only a fasting blood sugar, for it alone would indicate satisfactory control in the first and over-treatment in the second. Whereas the reverse is actually true. It is only by taking the three blood sugars that it can be shown that 47 per cent of the diabetics are inadequately controlled by protamine zinc insulin alone.

Such cases as the above need more insulin, but obviously the amount of P.Z.I. cannot be increased, and in the extreme case must even be decreased.

In such circumstances it has been the custom to give one injection of P.Z.I. in the morning, supplemented by an injection of faster-acting insulin at the same or some subsequent time during the day.

This works out satisfactorily in so far as the medical control of the diabetes is concerned, but it does subject the patient to more than one injection each day.

Believing that it is sufficiently important to the patient to make the number of injections as few as possible, and following the suggestions in several reports of a more scientific nature, we have been using for the past two years A.I. and P.Z.I. given together as one injection.

AMORPHOUS AND PROTAMINE ZINC INSULINS COMBINED

The commercial protamine zinc insulin contains an excess of protamine zinc, but even in theory it should be possible to so mix these insulins as to get some A.I. as well as P.Z.I. effects. Peck⁸ has given a table of the theoretical content of A.I. and P.Z.I. in mixtures of various proportions of these two insulins. For example 25 units of A.I. plus 75 units of P.Z.I. should yield a mixture containing 10 units of A.I. plus 90 units of P.Z.I.

In practice it has been found that usually there needs to be an amount of A.I. at least equal to that of the P.Z.I. before a definite A.I. effect can be demonstrated.

This fact probably accounts for the unfavorable reports on the use of these mixtures (2, 3, 4, 6,) in which relatively small amounts of A.I.

were used. The use of quantities of A. I. less than that of the P.Z.I. is unsatisfactory, although a few exceptions to this rule are noted below.

More recently, encouraging reports on the use of these mixtures have appeared, and in these an excess of A.I. over P.Z.I. has been used. Colwell⁹ used a stock solution containing 2 parts A.I. to 1 part P.Z.I. with very satisfactory results, while Ulrich⁷ used a 3:2 mixture. The latter also showed that the results were at least as predictable as when the two insulins were given separately, but that the mixture gave a more constant control throughout the day.

In place of such stock mixtures of fixed proportions, we have employed a different method of mixing. Each morning at injection time, the amorphous insulin is taken into the syringe first and the proper amount of protamine zinc insulin added, and the injection immediately made. This order is followed only so that no P.Z.I. can be introduced into the bottle of A.I. Fearrington¹⁰ also uses this method.

This manner of mixing the insulins offers a much greater flexibility in the proportions given. It is a more tailor-made method than the use of stock solutions of fixed proportions. It can be varied to meet the needs, not only of each patient, but also of each individual as may be necessary from time to time.

This is an important advantage, for in our cases the proportions necessary to give adequate control have varied widely. So widely, that no generalization can be made as to the usual relative amounts of the insulins, except to say that there must be at least as much A.I. as P.Z.I. in the mixture before any A.I. effect is obtained.

Some patients have required four to five times more A.I. than P.Z.I., while many have required only a slight excess of the A.I.

Then there have been a few cases, who contrary to the above generalization, have had some rapid-insulin action even where the amount of the A.I. was less than that of the P.Z.I.

The only criteria as to the relative amounts of the two insulins needed, have been the levels of the three a.c. blood sugars.

The fasting blood sugar is the best guide as to the amount of P.Z.I. needed. If this be too high, more P.Z.I. is needed and vice versa.

The noon blood sugar level shows the need for raising or lowering the amount of A.I.

The afternoon blood sugar occupies an intermediate position. But in most of the cases where it has been too high, the noon blood sugar was also. Increasing the A.I. has brought both down to adequate levels, even though it is probably mostly P.Z.I. action at this time. Lowering the noon blood sugar with A.I. holds the blood sugar in control until the protamine commences to act.

In regulating a new diabetic every effort is

made to first stabilize him on P.Z.I., and only where this fails, is part of the P.Z.I. replaced with A.I. As mentioned previously there seems to be no general rule that can be followed in proportioning the amounts of the two insulins, but the following guides have been of some help.

Firstly, if on a given dose of P.Z.I. the average of the fasting and noon blood sugars falls in the adequate-level zone (80—180 mgms. per cent), half of that dose is given as A.I. and the rest as P.Z.I. Further changes will be as indicated by the check on the blood sugars with this half and half mixture. Secondly, if with the first blood checks on P.Z.I. alone there is a marked rise between the fasting and noon blood sugars (a rise of 120 mgms, or over), it will usually save time in regulating the patient, to make subsequent increases in the dosage by addition of A.I. As A.I. is increased it is usually necessary to decrease the P.Z.I. in order to keep all three blood sugars at proper levels.

To emphasize the point again, these are only general guides, and only the actual blood sugar levels on any given dosage are the indicators of the adequacy of that particular dose.

Most of the cases treated with the mixture are the moderately severe, so that the total dose of insulins has been for the most part between 40 and 60 units. However it has been used with advantage in one case receiving a total dose of only 15 units. At the other extreme were two patients who used 70 to 80 units, and one 90 units in all. The juvenile diabetics are the ones who have benefited most from the mixtures even when the total dose has been quite small.

Thirty-eight per cent of the diabetics have been controlled by this method, the advantages of which have been:

1. The use of only one in place of two or more injections.
2. Better and more even control of the blood sugars throughout the day.
3. Avoidance of nocturnal hypoglycemia.
4. Smaller total unitage in a few cases.
5. Many of the patients have noted subjective improvement.

The slightly greater difficulty in taking the two insulins into the syringe has been far outweighed in the opinion of the patients, by the advantage of only one injection. Nor have we had any patients who could not accomplish the mixing.

With a little practice it has taken no longer to regulate a patient on the mixture of insulins than it does with P.Z.I. alone.

Four cases typical of those needing the use of the combined insulins are given in abbreviated form below. In all cases the patient had been on the dosage shown for at least four days.

Case 1, shows a much better control with the combined insulins of the same total dosage than with the P.Z.I. alone. It also shows the best result when there is a slight excess of A.I.

Case 2 is one which required the largest A.I.: P.Z.I. ratio, being 4:1.

		Blood Sugars in mgms. % at		
		8:00 A.M.	12:00 noon	5:00 P.M.
Case 1, Mr. H.H., 48 yrs.				
P.Z.I. 40 units	54	182	265	
P.Z.I. 25, A.I. 20	49	117	147	
P.Z.I. 15, A.I. 25	140	100	87	
P.Z.I. 20, A.I. 20	68	100	84	
Case 2, D.B., 9 yrs.				
P.Z.I. 15, A.I. 25	205	327	329	
P.Z.I. 10, A.I. 45	72	50	70	
Case 3, Mrs. E.B., 31 yrs.				
P.Z.I. 35	191	297	261	
P.Z.I. 35, A.I. 10	92	201	154	
P.Z.I. 30, A.I. 15	124	128	99	
Case 4, R.G., 10 yrs.				
P.Z.I. 47	39	294	405	
P.Z.I. 20, A.I. 18	196	168	159	

Case 3 demonstrates very clearly a definite A.I. effect even though there is only one-half as much A.I. as P.Z.I.

Case 4 is typical of those in which the combined insulins not only gave better control, but also effected a reduction of the total dose.

SUMMARY

1. Of 150 patients, 93.5 per cent have been controlled with one injection of insulin daily.
2. Fifty-three per cent received one injection of protamine zinc insulin alone.
3. Thirty-eight per cent received one injection of a mixture of protamine zinc and amorphous insulins.
4. The method of using and the advantages of such mixtures in the ambulant diabetic is discussed.

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Uses of Strophanthus In Heart Disease

EDWARD PODOLSKY, M.D.

STROPHANTHUS is a species of plant from the family Apocynacea and has been known to medical science for more than 70 years. Juices of this plant which is indigenous to certain parts of Africa have been used with deadly effect by the natives in the form of arrow poisons. Its pharmacodynamic action was probably studied for the first time by Vulpain and Pelikan in 1865. In 1872 Fraser isolated a glucoside from this plant which he named strophanthin. Since then several varieties of strophanthin have been isolated. These vary in their composition and in their mode of action largely according to the manner of their preparation and the particular species of plant from which they are derived.

K-strophanthin (Strophanthinim U.S.P) is a mixture of glucosides which is not uniform. Strophanthins of this type are used particularly in the United States and England. The G-strophanthin is a crystalline strophanthin obtained from *strophanthus gratus* by the method of Thoms. It is said to be identical with the glucoside derived from *Acocanthera ouabio*, but Tiffeneau believes that "the identity of the ouabain of *strophanthus gratus* and that of *Acocanthera ouabio* is not absolute." This strophanthin is used a great deal in Germany. The ouabain of Arnaud is a crystalline strophanthin obtained from *strophanthus gratus*, but by a different process from that of Thoms. This form of strophanthin is used in preference to all others in France.

It is unfortunate that there are so many varieties of *strophanthus* available. This has only served to confuse them in the minds of most physicians. The matter may be simplified considerably by choosing one particular preparation of *strophanthus* and using it exclusively. Ouabain seems to be the most desirable, the one prepared in purest form and which possesses therapeutic efficacy to as great a degree as any other *strophanthus* preparation or derivative.

It was Fraenkel more than anyone else who helped to call the attention of cardiologists to *strophanthus* in the early days. He was a firm believer in its effectiveness in the treatment of advanced heart failure, and his results were confirmed by many other investigators. Unfortunately, it was also their experience that serious accidents and even sudden death occurred altogether too frequently, especially when the drug was given by the intravenous route. Its use was then naturally abandoned for it was felt that *strophanthus* while it may possess certain ad-

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vantages was too dangerous a drug for general use.

Among the cardiologists who did not lose faith in *strophanthus* was Vaquez, who was so impressed by the good results obtained from its use that he determined to investigate the reasons for its toxic action, and to find a substance that would retain its undoubted high therapeutic value without the dangers shown to exist in the *strophanthus* in general use at that time. He soon learned that the way in which *strophanthus* was prepared as well as the sources from which it came, had much to do with its toxicity, and also that the preparations were not constant in either activity or toxicity.

In 1888, Arnaud, professor of chemistry at the Natural History Museum, Paris, succeeded in isolating the active principle of the *Acocanthera ouabio*, a tree, the wood of which yielded the poisonous extract employed by the Somalis and other primitive tribes for their arrows. This active principle proved to be a glucide which he called ouabain. Vaquez became particularly interested in this new and apparently more desirable *strophanthus* derivative. He gave over 2,000 injections without a serious accident. Chemical examination shows that ouabain has the formula $C_{36}H_{46}O_{12}$. The other strophanthin derivatives have the formula $C_{31}H_{48}O_{12}$.

Vaquez has probably had more experience with strophanthin than any other cardiologist. Concerning its physiological actions he says: "*Strophanthus* is above all a heart poison, on which organ it has a remarkable action. Soon after the administration of a lethal dose the heart beats more slowly, the ventricles contract more and more, their output diminishes and death ensues when the heart, rigid, contracted and empty of blood, stops on account of excess of function. The influence is exerted first on the ventricles; the auricles resist longer. Finally it has been proved that the arrow poison acts on the myocardium itself, and not on the nerve filaments. The arrest of the heart does not depend on the intervention of the vagus or the medulla or the cord.

. . . Strophanthus, then is the heart medicine *par excellence*, the effects of which are exerted exclusively on the myocardium without the intervention of any other factor. Perhaps it affects conductivity also, as Jameson has suggested, by lengthening the conduction time. The elimination of strophanthus is more rapid than that of digitalis, but it is not known how it occurs. At all events, the substance is not evacuated by the kidneys, nor the salivary glands, nor by the alimentary tract, and on account of its rapid disappearance it has not a cumulative effect." Vaquez further believes that strophanthus becomes fixed in the myocardium after the manner of a stain or toxin, and "that the fibres react more easily to the contraction owing to the fact that the myocardial tonicity has returned to normal."

The favorable results which have been obtained with strophanthus in auricular fibrillation and the ill effects which have been noted following its administration following digitalization, indicates that it diminishes conductivity.

Strophanthus medication is not entirely without some disagreeable effects. On the gastrointestinal tract in large or long continued doses it may produce anorexia, nausea, vomiting and diarrhea. Loss of appetite suddenly developing during strophanthus medication suggests that the drug had best be stopped.

Interesting experimental work on strophanthus therapeutic efficacy was carried on by Anitshow and Trendelenburg. They observed the action of strophanthus on heart and lung specimens from dogs and cats with spontaneous or artificially produced decompensation. Under the influence of strophanthus in therapeutic doses, the output of the heart was increased from 30 to 100 per cent, the average being 74.33 per cent.

Another recent bit of interesting experimental work on the therapeutic efficiency of strophanthus was carried out by Mies who found that strophanthus diminished the blood volume to a significant degree from 24 to 36 hours after an intravenous injection. The degree of reduction was more or less proportional to the size of the dose administered. The diminution of blood volume may possibly be a factor in the restoration of cardiac efficiency by reducing the venous congestion.

Vaquez is of the opinion that strophanthus is preferable to digitalis whenever cardiac insufficiency is associated with lack of myocardial tone. While digitalis has a marked effect on contractility, excitability and conductivity of the myocardium it has very little influence on myocardial tonus. This was amply proved by Baraige in a series of electrocardiographic studies; Japelli and Meldolesi further confirmed this. These studies tended to show that small doses of strophanthus acted upon the tonus and contractility of

the heart by determining a reinforcement of systole and slowing of the pulse.

The loss of myocardial tonus takes place in acute dilatation or in the course of progressive cardiac insufficiency such as follows valvular lesions, subacute myocarditis, etc. Strophanthus in these cases has also been found to be effective as a diuretic, its diuretic action becoming manifest as a rule within 24 to 48 hours after beginning treatment.

Strophanthus has also been used with good results in cases of acute dilatation of the heart. In cases which are manifested by angina pectoris or by pulmonary edema quick action is essential, and this may be obtained by an intravenous injection of strophanthin or ouabain. In progressive insufficiency of the left heart with the sudden supervention of increased blood pressure strophanthus effects a noteworthy improvement within 24 hours. The precordial pain and dyspnea diminish, the pulse becomes slower and more regular, and the increased blood pressure is cut short. This is due to the action of the drug on the tonus of the myocardium, which has overcome the peripheral resistance.

Certain cases of right ventricular insufficiency are refractory to the action of digitalis. This lack of action on the part of digitalis may be due to a clogging of the circulation by the enlarged liver or to a widespread peripheral edema, or perhaps to the fact that disturbances of conductivity have followed loss of myocardial tonus. The ascites should be relieved by the proper means and strophanthus therapy instituted for two or three days. This measure often succeeds when digitalis is not successful. In some cases it has been found that when digitalis is again given it acts in a more efficient manner, because myocardial tone has been improved by the strophanthin. This would seem to be in the nature of a reactivation of the digitalis by the strophanthin. Dimitracoff records several cases in which patients suffering from complete cardiac insufficiency and generalized edema of long standing, who had taken digitalis with no effect were relieved by the successive administration of ouabain, digitalis and theodromine.

In certain cases of arrhythmia, more particularly in attacks of tachycardia which are apt to be brought on when the auricle is very much distended, strophanthin is often indicated, first to arrest the attack, and second to overcome the effects of dilatation.

In the heart of pregnancy strophanthin has been given by Fiessinger to pave the way for subsequent digitalization which is brought on quicker and with greater effect. Jamison and Jones have found strophanthin very useful in cases of aortic regurgitation and the large heart of syphilis, with failure on the left side.

Criep found that strophanthin produced marked slowing of the heart rate and the disappearance

of a *pulsus deficiens* in from five to fifteen minutes after an injection of the drug. In cases with sinus mechanism but advanced heart failure, rheumatic and luetic, congestive as well as anginoid type, strophanthin in many cases gives the patient marked subjective relief.

The contraindications of strophanthin are: advanced cardiac cachexia with generalized infiltration, where the degenerated myocardium is incapable of responding to even strong stimulation; inflammatory complications of the lungs; hepatic insufficiency; chronic kidney involvement; infective endocarditis grafted on primary valvular cardiopathy, constituting a form of malignant endocarditis running a slow course.

Strophanthus may be administered orally, intramuscularly and intravenously. Cornwall has also suggested the sublingual method. The intravenous route is the most direct, and the one to be preferred in emergencies. In most cases where large or moderately large doses are required, the hypodermic route is to be used. In cases where small or moderate doses are indicated the oral or sublingual route is employed. Cornwall believes that in the sublingual method a considerable portion of the dose is readily absorbed through the limited area of sublingual mucous membrane into the closely subjacent blood vessels.

Intravenous strophanthin treatment was first recommended 25 years ago by Fraenkel. He believed that this was the most satisfactory means of giving the drug to obtain its maximum effect. In Germany this method is preferred to others, particularly in the treatment of chronic cardiac insufficiency. Provided that there has been no digitalization for at least 48 hours, a single intravenous dose of 0.5 mg. is safe, but this is best administered in the form of two doses of 0.25 mg. given night and morning on the first day and possibly repeated on the second day. The single dose of 0.5 mg. is repeated at first daily, and later every second day, according to the therapeutic results. If dehydration and diuresis proceed but slowly, diuresis can be promoted by combining intravenous injections of salyrgan with the strophanthin.

In the United States the tendency is away from intravenous administration of strophanthin except in grave emergencies. In ambulant cases of fatty or fibroid degeneration of the heart with only moderate shortness of breath on exertion, and little or no edema, the dose of 1/1000 grain, given sublingually, three or four times a day is sufficient. In the more advanced cases which are still ambulant, doses of 1/500 grain given three or four times a day may be required. In the severer cases which are confined to bed 1/500 grain six times a day is indicated.

In the very severe cases of myocardial failure the dose of 1/250 grain given hypodermically,

intramuscularly or intravenously and repeated once or twice at four or six hour intervals may be required. In grave emergencies, as in acute dilatation, a single dose of 1/100 grain may be given. In conditions of heart failure occurring in acute infections such as diphtheria and pneumonia the doses indicated above may be used.

In France the preference is for strophanthin in the form of ouabain. Ouabain is available in tablets, varying in strength from 1/480 to 1/120 grain; ampules containing from 1/240 to 1/120 of a grain per cc. and in solution for oral administration. In emergency cases, according to severity of the condition, 1/240 to 1/120 grain is given intravenously once in every 24 hours. Four doses at intervals of 24 hours each will, if it is at all possible to secure any relief, be sufficient. Intramuscular injections may be given in doses of 1/240 to 1/120 grain, using only ampules prepared especially for intramuscular use. This is also best given at intervals of 24 hours for three or four days.

The solution of ouabain which is made especially for oral administration is given in doses averaging 100 drops per day. According to the severity of the disease the dose is from 30 to 50 drops for the milder heart affections and 100 drops for the more severe types of aortic regurgitation.

Ouabain is a drug which cannot be given indefinitely; the average number of days is about four in which the drug may be administered. In children over five years of age the dose is two to three drops a day for each year of age. The specified dose can be given all at once or in divided doses, according to circumstances. It should be given fasting or between meals in a little sweetened water or milk.

In tablets ouabain may be given in doses of 1/240 of a grain, six to eight times a day for periods of two to three days repeating every 20 or 25 days.

The solution may also be given rectally in urgent cases of acute dilatation of the left heart with acute pulmonary edema. For this purpose 50 drops diluted in 50 cc. of water with about 10 drops of laudanum may be used. This is particularly valuable when the patient is suffering from gastric upset or where a vein is not readily available.

Strophanthus and its derivatives were never intended to supplement digitalis. The two drugs are not substitutive; they have essentially different actions. Digitalis by its moderating action on the excitability and conductivity of the heart, regulates cardiac rhythm, where strophanthin improves myocardial tone. From this point of view strophanthin supplements the action of digitalis, the two drugs constituting by their judicious successive employment a particularly valuable therapeutic complex.

Hodgkin's Disease Complicated by Amyloidosis and a Nephrotic Syndrome: Case Report

ROBERT G. LEHMAN, M.D.

THE case of Hodgkin's disease to be reported is somewhat unusual in that it is complicated by amyloid disease and a nephrotic syndrome.

Amyloidosis is not a common sequel to Hodgkin's disease, although it is frequently found associated with tuberculosis, syphilis, chronic suppurative disease of the bones and kindred cachectic states. Boyd states that amyloid is usually abundant where reticulo-endothelial cells are numerous, hence it is not surprising to find amyloidosis complicating a lymphomatoid disease.

Musser describes a case of amyloid nephrosis observed by him, which case showed chronic uremia of more than three years' duration. The patient showed a PSP excretion of less than 10 per cent in two hours and never evidenced cardiac hypertrophy or retinal changes.

The congo red test of Bennhold is of value in the diagnosis of amyloid disease. The test consists of the intravenous injection of a definite amount of the dye and the colorimetric estimation of the amount of dye remaining in the plasma after one hour. The test depends upon the fact that amyloid in tissues takes up the dye and holds it. Bennhold found that in normal subjects 11 to 30 per cent of the dye disappeared at the end of one hour, whereas the disappearance of 60 per cent or more indicated the presence of amyloid disease. He demonstrated correlation of clinical and autopsy findings in 6 out of 9 cases. Other investigators have corroborated Bennhold's results. Lipstein correlated the test with autopsy findings in 125 tuberculous patients and concluded that the test is confirmatory of the presence of amyloid disease only when 90 per cent or more of the dye is absorbed. The latter also noted that renal amyloidosis can result in 100 per cent absorption.

Mark and Mosenthal recently studied kidney function in renal amyloidosis. They point out that albuminuria and a congo red absorption of 90 per cent or more, are reliable evidence of amyloid disease of the kidneys, and their experience is in accord with that of other investigators that hypertension, cardiac enlargement and eyeground changes are uncommon in this type of renal involvement.

REPORT OF CASE

The patient, a 36 year old Italian-American cement worker, was admitted to the medical service of the Miami Valley Hospital, Dayton, Ohio, September 25, 1939, complaining of swelling of the neck, abdominal pain, loss of weight and ap-

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petite, vomiting, constipation and occasional bouts of diarrhea. The present illness had begun in June, 1937, at which time he noted the onset of chills, feverishness, night sweats and nightmares. A physician advised removal of the teeth, which was done. The complaints did not abate and in addition weakness, lumbar and abdominal pain and painless enlargement of cervical lymph nodes were noted. In March, 1938, he entered St. Elizabeth's Hospital, Dayton, Ohio, for diagnostic study. The blood studies were unremarkable at this time save for the presence of mild hypochromic anemia. Urine analyses were negative, as were flat films of the abdomen and a retrograde pyelogram. Cystoscopic examination was negative, and the consulting urologist stated that there was "a retroperitoneal mass of extrarenal origin." Biopsy of one of the cervical nodes revealed "chronic fibrosis" only, and high voltage roentgen therapy was given to the left lumbar region, which effected amelioration of all symptoms.

For the next year or so the patient felt improved but was weak. He gradually lost 50 pounds and for four months prior to the present admission he suffered from frequency and polyuria, and at intervals was incontinent. For two months prior to admission he had diarrhea but no melena. Vomiting occurred occasionally.

The past and family histories were non-contributory.

The salient features of physical examination were marked weight loss, dehydration, brownish pigmentation of the skin with scattered areas of branny desquamation and a cachectic appearance generally. In addition, shotty, discrete, painless cervical lymphadenopathy was noted.

Biopsy of a cervical node verified the provisional diagnosis of Hodgkin's disease. X-ray films of the chest and gastro-intestinal tract were negative save for the displacement of the duodenum by an enlarged liver. The kidneys did not visualize after injection of diodrast intravenously. The consulting urologist was unable to catheterize the left ureter, whereas he was easily able to reach the right renal pelvis.

The blood studies on admission were negative save for a rapid sedimentation index. The urine was of low specific gravity and contained a large amount of albumin. PSP excretion was zero. Blood chemical determinations revealed 53 mg. urea nitrogen and 6 mg. creatinine per 100 cc. respectively. The other values were within normal limits. The Mosenthal concentration test showed a fixed specific gravity at 1.005 on all specimens. The BMR was minus 22 per cent.

Initial treatment consisted of regular diet and the administration of copious quantities of fluids in order to combat dehydration. It was felt that the azotemia was obstructive in character, for there were no manifestations of the nephritic type of uremia. About a week after admission the patient manifested dependent and independent edema, and this finding, together with the other findings reported above, prompted the determination of the total and fractional blood proteins. This revealed 4 grams protein per 100 cc. with an albumin-globulin ratio of 0.5. The blood cholesterol was within normal limits. The patient was placed on a diet for nephrosis, salt-poor, high carbohydrate, high protein, and 2 grains thyroid extract begun. Fluid intake was limited.

Urine analyses for the next week were essentially the same as the one on admission. The edema gradually disappeared and the uremia improved moderately as reflected by blood chemical studies.

Because of the presence of a nephrotic syndrome, a congo red test was performed, which revealed 65 per cent absorption after one hour. (No dye was excreted into the urine.) Thus the diagnosis of amyloid disease became probable.

From October 13 to October 27 the patient received high roentgen voltage therapy to the involved nodes and his general condition improved in all respects. He was dismissed on November 6, 1939, to be followed as an outpatient. He was readmitted for follow-up studies December 26, 1939, and at this time it was found he had gained about 30 pounds and felt considerably improved, although hypochromic anemia was more severe and edema was minimal. The azotemia was somewhat improved, but the urine analyses and other laboratory tests were in all respects the same as those done during the first admission in the preceding September. A second congo red test revealed 100 per cent absorption, so sections of the originally removed node were stained for amyloid; this substance was found to be present. Additional findings were an osteoblastic lesion of the 4th lumbar vertebra and it became apparent that the anemia was myelophthisic in nature.

The course was progressively downhill in the next two months. A third congo red test showed 67 per cent absorption. Marked regurgitation jaundice developed, together with hepatomegaly and enlargement of the spleen, and on March 31, 1940, the patient died.

Postmortem examination was performed the same day. Only the salient features will be described: The spleen weighed 475 grams and measured 15x14x6 cm. Microscopically, diffuse fibrosis, many Dorothy Reed cells and large deposits of amyloid were found. The liver weighed 2800 grams and contained large amounts of amyloid. The kidneys showed almost entire replacement of glomeruli by amyloid. The adrenals and lymph nodes were largely replaced by amyloid. The bone marrow showed aplasia of erythropoietic elements with increased fibrous tissue and increase in myelocytic elements, especially eosinophils.

Detection and Control of Defective Vision in Industry

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SEEING is more than a visual function, it is an activity of the human being. Industrial efficiency depends upon good vision, therefore, labor specifications for any modern industry are expressed in terms of sustained attention, correct perception and quick reaction. Visual aptitudes as well as manual and intellectual aptitudes have been brought sharply into the focus of industrial management. Therefore, the employer who is concerned with the welfare and health of his employees, reaps a tangible reward in work well done.

The increase of production due to the war, calls for an appraisal of the eye defects as they exist in industry. Little thought has been given to the establishment of practical visual standards which vary according to the requirements of specific jobs. Eyes for the job is the concept we must follow. This is particularly true since so many of the younger workers have been taken into the armed forces, and the older ones are being called back. Those with defective vision both due to presbyopic symptoms and the infirmities of middle age.

A complete examination of the eyes may easily be the most important part of the physical examination, because it determines first, the employee's ability to see, which will be the determining factor in his efficiency. Second, to prove that he is physically competent to do the work. Third, that any pathological conditions, which may be progressive or which might be aggravated by minor injury or strain, are not present; or if they are, that they are a matter of record for consideration if their presence becomes a matter of importance in connection with claims for compensation. Fourth, that the employee be given proper advice concerning any detrimental tendency or inherent weakness, so that he may take proper care of himself to avoid disability.

Many industrial physicians question the advisability of examinations other than by an oculist, because while an optometrist may refract the eyes and prescribe indicated corrected lens, he is not a physician and is therefore not so well qualified as an oculist to diagnose diseased conditions of constitutional origin. The American College of Surgeons, and the Conference Board of Physicians in Industry have gone on record as opposing the examination of eyes by others than qualified practitioners of Ophthalmology.

The following procedure is suggested and should prove satisfactory. A preliminary survey is made at the plant, allowing from seven to

Note: The writer wishes to express his gratitude to Dr. Walter M. Simpson, Pathologist to the Miami Valley Hospital, Dayton, Ohio, and Director of its Diagnostic Laboratories, whose valuable supervision and suggestions have been so helpful in this study.

Note:—One of a series of editorial summaries on Industrial Medicine in time of war, written at the request of the Editor.

ten minutes to each employee. The examination consists of:

1. Name, age, and type of work.
2. Testing the visual acuity of each eye separately, and together for distance.
3. Testing of each eye separately and together for close.
4. The external examination of each eye.
5. The examination with the ophthalmoscope with undilated pupils.
6. Testing the color vision.
7. Neutralization of glasses if worn, and the visual acuity with same.
8. Check of the plant illumination.

After a study of the records, a report is made to the personnel director, embodying the following points:

1. The following should have office examination at once, because of defective vision, headaches, etc.
2. The following should be examined in six months.
3. The following should change their work, because of defective vision or lack of stereoscopic vision.
4. The following are color blind.
5. Protective goggles are recommended for the following.
6. An increase of illumination is recommended as follows.

With these recommendations are given, the employee's name, his visual acuity, and his visual efficiency percentage. The survey should be made by, or under the direction of a trained ophthalmic physician, who is uninterested in the sale of glasses.

The two most common sources of trouble to those who have defective vision are, illumination and fatigue.

Comfort is more likely to suffer from a poor distribution of light than from improper level of illumination. For comfort, light must be diffused. Individuals vary. Those with strong healthy bodies, who have proper rest and sleep, and good eyes are satisfied with any old light. This is important, for while many people can work with inadequate lighting without eye strain or discomfort, those with vulnerable eyes may suffer seriously.

Defective illumination is common, and an expensive cause of defective vision, and accidents.

The major lighting effects can be easily corrected; to do so is both practical and economically profitable. The percentage of our industrial workers who have defective vision and other ocular defects is being increased, and poor illumination augments the ocular deficiencies already present. From a practical standpoint, it is necessary that at least 10 ft. candles of light fall upon the working surface in such a way that no glare is produced from the surface from any point at the level of the eyes.

Illuminating engineers are eager and willing to cooperate, and should be called upon for advice.

One must not lose track of the fact that the eye, a single unit of the body is influenced by general physical fatigue. Lowered production is the most easily recognized result of fatigue. Another result is slowness in response to stimulation. A workman who is fatigued does not see, does not hear, and does not understand, and does not act with his accustomed speed. No one will deny that poor vision, whether due to insufficient light, or to ocular defects is one of the principal factors in causing fatigue, not only of the eye, but of the entire body.

The prevention in industry in general, and of ocular injuries in particular, has been a crusade of the times. There is no dearth of literature upon both general and ocular care. Even on the latter, volumes have been written and the reader can seek out details. Of paramount importance is the fact that in spite of the ability of science to develop artificial hands, arms and legs, no one has produced an artificial eye that can see—nor can any one deny that 95 per cent of the eye injuries are preventable.

Silence and Sunshine

In the year 1847, Kussmaul was studying at the University of Vienna. Much of his time was spent "in the small, poorly equipped morgue" where the great pathologist, Rokitsky was making his daily contributions to our knowledge of gross pathology and building his astounding record of 30,000 autopsies.

Kussmaul left the following interesting picture of Rokitsky. If the reader permits his imagination to flow between the lines of this paragraph, he will sense the motivating principles in the lives of these two great men.

"The facial features of Rokitsky bore the stamp of great kindness of heart and of dependableness. Everyone respected him. He was extraordinarily silent. In the morgue he opened his mouth only to dictate the protocol. After I had been a constant visitor at the morgue for four months, it happened one beautiful autumn morning that the scalpel rested for a short period. I took advantage of the short recess by stepping to the door in order to enjoy the fresh air. Soon after Rokitsky came and stood near me in the sunlight, which he enjoyed noticeably. Suddenly he turned toward me, greeted me pleasantly, and said: 'This is nice weather.' I was dumbfounded. Had the daughter of Jairus suddenly arisen from the dead and come to me from the morgue with a loud greeting I would not have been more surprised. I composed myself, however, and answered: 'Yes, this certainly is a nice day.' The conversation was finished. It was the first and only conversation in which I heard him take part." —Editorial, *Jour. Oklahoma S.M.A.*, Vol. XXXVI, No. 1, January, 1943.

Mixed Tumors of the Palate

RAYMOND S. ROSEDALE, M.D.

EWING¹ in his latest edition of neoplastic diseases points out that the term "mixed tumor" is now used to designate those relatively simple, embryonal tumors which are of entirely local origin. They are the result of the proliferation of embryonal structures.

Mixed tumors of the palate are uncommon. According to Driver², Koch³ recorded his survey of 55 reported cases in 1927. Eggers⁴, in 1928 published his opinions regarding 100 reported cases, 87 of which, provided histologic descriptions which supported the diagnosis of mixed tumor. To these, he added, five cases of his own, making a total of 92. Holmgren⁵ stated that 115 cases of mixed palate tumor had been reported in the literature up to 1931. New and Childrey⁶ in 1931 reported their observation of 74 cases of mixed tumor in the orofacial region found at the Mayo Clinic from 1917 to 1930. In 56 per cent of these the tumor was located in the palate. From the State Institute for the study of Malignant diseases in Buffalo, New York, Thibaudeau and Burke⁷, in 1930 described the histology in six cases, whilst Schreiner and Mattick⁸ in 1929 reported six cases of mixed tumor of the palate in a study of tumors of the salivary glands. Driver² stated that in the University hospitals in Cleveland from January 1, 1931 until January 1, 1935, there were indexed 24 cases of mixed tumor of the parotid gland, seven of the submaxillary gland, one of the soft palate, one of the nasal fossae, and the one which he reported, in the hard palate. He also stated that in the search of the literature since 1927, 107 cases of mixed tumor of the hard palate were reported. G. Evans⁹ read the report of a case by Gourlay¹⁰ in 1936 and reported his own case because "mixed salivary gland tumors of the palate are of extreme rarity". Goldsmith and Ireland¹¹ reported two cases of mixed tumor of the palate in 1936. Liggett¹² reported two cases of mixed tumor of the soft palate in 1939. F. T. Hill¹³ reported four cases in 1938. However, study of his report indicates that one may have been an adenoma, one possibly a nasopalatine cyst and that one was probably a parotid tumor. Rein and Feldman¹⁴ in reporting a case in 1936 stated that mixed tumors of the hard palate were quite rare. Abshier¹⁵ reported six cases of mixed tumor of the palate in 1935 and referred to three others. These were the only ones seen in the New York Skin and Cancer and Presbyterian hospitals in ten years.

Regarding the age incidence of mixed tumors

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of the palate, they apparently may occur at any age. Goldsmith and Ireland¹¹ quote Ewing as having recorded one in a girl aged three. A review of the reported cases indicates that they are commonest in the fourth and fifth decades. Koch³ deduced from his study of 55 reported cases that the tumors occur equally often in males and females and more often in the third and fourth decades. In the soft palate the tumor tends to be to one side of the midline whilst in the hard palate they are more often in the midline. As to size, Koch³ found that they varied from the proportions of a pea to as large as a lemon. Two of the latter size were reported by Goldsmith and Ireland¹¹. In the case reported by Gourlay¹⁰ the tumor is alleged to have "filled the roof of the mouth".

As to duration of growth, the shortest duration noted by the author was in the 29 year old female who had noticed a swelling for only nine months, in the case reported by Rein and Feldman¹⁴, whereas the longest duration of a mixed tumor of the salivary gland type was that of Wood¹⁶.

Mixed tumors of the palate are encapsulated, rubbery in consistency and resilient. They are lobulated and of a gray-yellow color. Their physical characteristics do not differ therefore from those mixed tumors of salivary glands except, of course, that those in the parotid gland can, and do, attain a greater size. Infiltration of the capsule, and proliferation in the surrounding tissue has been described. This is more common in recurrences. Microscopically, the structure consists of various connective tissue derivatives such as fibrous connective tissue, reticulum, myxoid tissue, muscle fibers, cartilage, or cartilage-like structures, etc., and epithelial derivatives such as glandular epithelium. They are not particularly well vascularized. The histologic signs of inflammation will be present if ulceration and infection has occurred. The capsule is a fibrous connective tissue structure. In their growth these tumors cause some pressure atrophy

of the surrounding structures, even depression in the adjacent bone. Because of their encapsulation, the overlying mucous membrane is apt to be freely movable. There may be cystic degeneration in these tumors, but true cysts have not been described.

As to the degree of malignancy and radio-sensitivity of mixed tumors of the palate, there does not seem to be much information available in the literature. Hill¹³ stated that there is a tendency to recurrence years after removal and that these tumors are not radio-sensitive. However, Rhoads and McCray, Jr.¹⁷ expressed the opinion that recurrence of mixed tumors of the soft palate is unusual as compared with the incidence of recurrence of mixed tumors of the salivary glands. Evans⁹ noted the liability to local recurrence and referred to the infiltrative character of the tumors in their latest stages. Goldsmith¹¹ and Ireland believed that undisturbed tumors rarely invade the lymphatic spaces, except after unsuccessful operation, and that while recurrences are usually local, the cervical nodes may be progressively involved. They concluded that radiation should not be considered as primary treatment, and that recurrence of mixed tumors is frequent. However, their remarks did not specifically apply to mixed tumors of the palate.

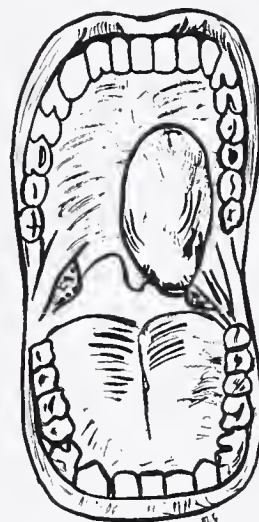
In the case reported by Driver² in a woman aged 42, who had had a growth the size of an olive, for ten years, a high frequency current was applied. Following this the lesion grew rapidly. Driver biopsied the lesion and treated it with interstitial radium needles. In his paper he concluded that radium treatment is the method of choice in mixed tumors of the hard palate. In Souchet's¹⁸ case also, a cure was reported following interstitial radiation. However, in a detailed study based upon his personal observation and experience and a review of the cases published in the literature totaling 359, McFarland¹⁹ pointed out that the structure of the mixed tumors suggests a "very unpromising field for success" as far as radiation is concerned. He was unable to conclude that any benefit had accrued from irradiation. In regard to surgical treatment he found that 30 per cent of the mixed tumors in the parotid region recurred. He also found that recurrences were more frequent when the tumors were removed while small. It was also pointed out by McFarland that if the capsule of a tumor be opened during operation, the tumor cells might be transplanted and produce recurrences. He stated that recurrences after excision might recur at any time up to 30 years and that the regular rate of growth is very slow ordinarily.

In further speaking of mixed tumors of the parotid region, McFarland stated that after re-

peated recurrence they may cause death by infiltration but rarely through metastasis. However, as pointed out above, these statements made by McFarland were applied to mixed tumors of the parotid region and they might not necessarily apply to the palate although there is no histologic difference between these tumors. In reviewing the literature, recurrences are not noted to be common, and, most all tumors have been cured by excision. Therefore, in regard to treatment of mixed tumors of the palate, it would seem, because of the foregoing statements and because of the accessibility of these tumors and the technical ease with which they can be removed, and also because of the generally recorded observations of radio-resistance of mixed tumors, that the optimum treatment should be that of total excision, with plastic closure of the healthy tissue.

CASE REPORT

Mrs. F. E. aged 63, was referred by Dr. S. E. Weiser on September 8, 1941. She stated that about 22 years before she had noticed a small



Drawing of original lesion as seen in the office.

swelling in the roof of the mouth slightly to the left of the midline. She was told that this was an "enlarged bone". This swelling progressively enlarged until upon the present occasion it was the size of a small hen's egg. There had never been any ulceration of the mucosa over it, although at irregular and infrequent intervals the mass would seem to be larger than usual and become tender and throb. The family history was not particularly remarkable. Her teeth were extracted about two months before the present examination and following this, she noticed that the mass seemed to enlarge more rapidly. Within the past few months there had occasionally been dysarthria because of the size of the mass. The past history was otherwise negative.

Examination disclosed an ovoid convex mass of firm consistency, to the left of the midline of the hard palate from about the level of the second pre-molar region. This extended posteriorly to nestle itself in the soft palate, displacing the uvula to the right of the midline. The mucosa over the prominence of the tumor was pale. As-

piration of the mass failed to gain any fluid. There were no masses in the neck. The findings in the remainder of the examination were not particularly significant.

The clinical diagnosis at the time the patient was first seen was benign tumor of the palate, probably an endothelioma.

On September 22, using sodium pentothal anesthesia intravenously, administered by Dr. H. H. McConkey, an incision was made over the long axis of the tumor through the mucosa. A capsule was encountered. The tumor mass was freed, everted, and removed, the adjacent borders of the mucous membrane elevated, repositioned, and retained with non-absorbent sutures. These were removed on the 29th of September. No packing was used. The patient made an uneventful recovery and there has since been no vestige of the tumor.

PATHOLOGY

The specimen was an ovoid mass 3.5x4x2 cms. It had a fibrous capsule. The cut surfaces were nodular. There were lobules of various shape, size, color, and consistency. The general consistency was firm and the predominant color was a pale, gray-yellow.

MICROSCOPIC DESCRIPTION

There was a multiplicity of tissue types in the section. There were irregular areas of lilac homogeneous appearing substance in which there were clear vacuoles with small nuclei from which fibrillar proliferations extended to the periphery of the vacuoles. In relation to one of these there was a small island of densely clumped small cells with darkly staining nuclei highly suggestive of an osteoblastic area. Nearby there was a myxoid stroma of a loose reticular nature. In other fields there was simple adipose tissue with large vacuoles. Intermixed with this there were irregular sheets, and islands of epithelial cells with abundant pink cytoplasm and deeply irregularly situated round to ovoid nuclei. An occasional tumor giant cell was seen. In some areas there were small collections of lymphocytes. There was fairly marked pleomorphism of these cells. The nuclei were not especially prominent. No mitotic figures were seen. Other epithelial derivatives were evidenced by duct-like structures lined by a single layer of flattened epithelium which was flanked by basement membranes. Other connective tissue derivatives were represented by fibrous connective tissue in which there were pink staining sweeps of collagen fibers with spindleform nuclei. Around the tumor there was a distinct capsule of fibrous connective tissue. Blood vessels were not numerous.

Pathological Diagnosis: Mixed tumor of the salivary gland type.

SUMMARY

A case of mixed tumor involving the hard and soft palate has been reported. The incidence of mixed tumors of the palate, their gross and microscopic pathology, and their radio-sensitivity has been discussed.

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Psoriasis of the Nails

A great deal has been written regarding the relationship of arthritis and psoriasis and there has been considerable controversy in the literature as to whether or not psoriatic arthritis is a definite clinical entity. Alibert, one hundred twenty years ago, was the first to call attention to the occurrence of joint pains in psoriasis, and in 1860 Bazin differentiated rheumatism with psoriasis from that without associated skin lesions. At the turn of the century, Adrian reviewed the subject thoroughly and did much to establish it as a syndrome. Since then several contributions have appeared yearly, mainly by foreign authors. A comprehensive study of the literature discloses only a few reports from this country. One of them is by O'Leary who saw 8 cases of arthritis in 1400 patients with psoriasis at the Mayo Clinic. One of them was reported in detail by Hench. In 1938, Dawson and Tyson analyzed 1000 cases of rheumatoid arthritis and found 26 cases of psoriasis—whereas, in the same number of osteoarthritis they found only three. This led them to conclude that there must be a direct relationship between rheumatoid arthritis and psoriasis, while in the hypertrophic type the association is, probably, purely coincidental. Twelve cases were considered to be "classical" in that they showed the clinical features and X-ray changes usually associated with rheumatoid arthritis, and two-thirds of these had involvement of the nails. In 75 per cent of all of their cases with psoriasis, the skin lesions preceded the development of the arthritis by a considerable period.—Le Moyne Copeland Kelly, M.D.; New York; *The Journal Lancet*, Vol. LXIII, No. 1, Jan. 1943.

Industrial Aspects of Peripheral Vascular Disease

LAWRENCE N. ATLAS, M.D.

PERIPHERAL vascular diseases or their complications, acquired as the result of industrial accidents, are of considerable importance for several reasons. They are very disabling, and the disability frequently continues for a long period of time. However, there is not only the economic loss to consider, but the anatomical and functional integrity of the limb is also frequently at stake, and occasionally life itself is threatened. Finally, a significant percentage of these cases need never occur if persons suffering from peripheral arterial or venous disease were not permitted to work at jobs where the danger of injury, particularly to the feet and legs, constitutes a recognizable industrial hazard.

ARTERIOSCLEROSIS AND ARTERITIS

When the blood supply to an extremity is diminished by a sclerotic or inflammatory process in the arteries, an apparently trivial injury, particularly to the distal portion of the limb, can assume disastrous proportions. Chronic ulceration or gangrene threatening the viability of the limb may ensue. It is a simple matter to feel for pulsation in the peripheral arteries when examining an injured extremity and to observe the distal portion of the extremity for abnormal changes such as pallor, cyanosis, and a reduction in surface temperature.

If the presence of arteritis or arteriosclerosis is detected, bed rest should be enforced so that the metabolic demands on the injured part can be reduced to a minimum. Extreme care must be exercised to avoid infection. If the injury requires surgical repair, local anesthesia should not be used, the application of irritating antiseptics such as tincture of iodine should be avoided, and the injured tissue should not be surgically traumatized any more than is absolutely necessary. Suitable measures to increase the flow of blood to the ischemic part should be employed, avoiding those which may in themselves further irritate or expose to secondary infection the injured tissue. A thermostatically controlled heat cradle set at 95° F. is the safest and most adequate of the vasodilating devices. In the presence of a complicating vasospasm, paravertebral procaine injections of the sympathetic ganglia or

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a sympathectomy may be required to secure healing.

When the presence of antecedent peripheral vascular disease can be established, the relation of an injury to an ensuing lesion is apparent. On the other hand, I have observed a number of cases in which the injury, per se, appeared to have initiated a pathological process clinically indistinguishable from Buerger's disease. Whether, in these cases, the injury merely caused a "latent arteritis" to flare is a moot question. Traumatic arteritis may spread with alarming rapidity. Attempts to check the disease are futile, and the limb is eventually lost. However, there is another type of traumatic arteritis which is more amenable to treatment. A contusing injury to the terminal phalanx of a finger or toe is shortly followed by excruciatingly severe local pain. The injured digit becomes swollen, stiff, discolored, and frequently cold. There is considerable reflex vasospasm and the entire hand or foot may become cold, cyanotic, and sweaty. As the dystrophy progresses, the injured phalanx becomes gangrenous and ulcerates. These cases respond with amazing rapidity to a sympathectomy. Pain is immediately relieved, gangrenous tissue demarcates and separates, and ulceration heals.

Finally, can a local injury aggravate the severity of a pre-existing arteriosclerosis or arteritis? There can be no doubt concerning the possibility of such an effect. Any injury sets up an adjacent reactive inflammation which is conducive to a local thrombosis of diseased vessels. Once started, this thrombosis may extend for varying distances from the site of the initial trauma. In addition, the pain associated with the injury may reflexly constrict and thus thrombose diseased vessels in other parts of the extremity. The net result is to destroy the favorable balance between the collateral and the di-

Submitted November 10, 1942.

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seased circulations existing prior to the injury. Unless other collaterals develop, the resultant diminution in the peripheral circulation is permanent, and the individual finds it impossible to resume normal activity.

RAYNAUD'S DISEASE—PNEUMATIC HAMMER DISEASE

Individuals suffering from Raynaud's disease can not work where they are exposed to cold. Neither can they work at jobs where their fingers or toes are exposed to trauma or to irritating substances.

Pneumatic hammer disease is a rare occupational disturbance engendered by long continued handling of powerfully vibrating tools such as pneumatic hammers, riveting machines, etc. It seems that in an occasional individual the constant vibration irritates either the blood vessels or nerves, and a vasospastic dystrophy ensues which is similar to Raynaud's disease. I have seen one case in which a foot was involved. For several years this woman had worked at a machine where she had to keep her foot on a continuously vibrating pedal. Change of occupation frequently clears up the vasospastic disturbance although in well established cases a sympathectomy may be required to secure relief.

FROST BITE

Frost bite of the hands or feet, when incurred during work, may be considered an occupational injury. From the standpoint of vascular disease, the importance of frost bite is two-fold. It may produce an obliteration of the main arterial circulation in the hand or foot which leaves the patient with a chronic ischemia; or it may incite a vasomotor disturbance of varying degrees of severity, a mild form of which is commonly known as chilblains. Either of these conditions may incapacitate the individual for long periods of time after the immediate effects of the frost bite have disappeared.

TRAUMATIC SPASM OF THE ANTERIOR SCALENE MUSCLE

This condition follows falls or heavy blows on the tip of the shoulder with a sharp depression of the shoulder girdle. The brachial plexus is overstretched, and the injury to the nerves resulting therefrom sets up a spasm of the adjacent anterior scalene muscle which, in turn, further aggravates the injury by compressing the cords of the brachial plexus. An intractable vicious circle is thus established. Symptoms consist of pain in the shoulder, arm, and hand; the latter associated with muscle weakness and paresthesias. Movement of the shoulder is usually restricted. Vascular complications including thrombosis of the brachial artery, vasospasm of the hand, and

ulceration of the fingers may be observed. Vascular complications rarely appear unless there is a cervical rib or an elongated transverse process of the last cervical vertebra. Treatment consists of repeated procaine infiltrations of the anterior scalene muscle. If these yield only transient relief, the muscle should be sectioned.

TRAUMATIC VASOMOTOR DYSTROPHY

As the result of traumatic lesions of normal peripheral blood vessels or nerves, particularly the branches of the sciatic or median nerves, a peculiar type of reflex vasomotor disturbance may ensue which has been variously designated as causalgia, Weir Mitchell's disease, Sudeck's dystrophy, traumatic vasospasm, and traumatic reflex vasomotor dystrophy. Gun shot wounds; puncture wounds; contusions; lacerations; amputations; and severe sprains, dislocations, and fractures particularly of the wrist, ankle, and knee have all been observed as causal agents.

The dystrophy always manifests itself in the hand or foot of the injured extremity, although the more proximal parts may also exhibit the characteristic changes. The clinical picture varies from individual to individual. The skin of the involved hand or foot may be red, hot, and dry; or cold, cyanotic, and sweaty depending on whether an excessive vasodilatation or a vasospasm is the predominant vasomotor disturbance. The subcutaneous tissue is frequently the site of a diffuse, firm, tender edema with tight, shiny, and atrophic overlying skin. In the hand there is apt to be joint fixation which appears early and which may be permanent. Muscle weakness is usually present, and there is always a diminution in cutaneous sensibility particularly to light touch. A peculiar type of spotty bone decalcification of the carpal and metacarpal or tarsal and metatarsal bones is a diagnostic X-ray sign.

What really characterizes these cases is the severe and intractable pain. A loud noise, a draft, or a light stroking touch can evoke a paroxysm. For protection, these sufferers often keep the painful part wrapped in cold wet rags.

Treatment is based on interrupting at some point the nervous reflex arc responsible for the maintenance of the vasomotor disturbance. This may be accomplished in several ways depending on the nature and location of the inciting lesion, and the severity of the case. For example, repeated procaine injections into the injured tissues, into the nerves innervating these tissues, or into the appropriate sympathetic ganglia may suffice. If the pain cannot be permanently relieved in this manner, a sympathetic ganglionectomy must be performed. In the lower extremity, this may have to be combined with a periarterial sympathectomy of the common femoral artery. What should never be done is to amputate the painful

part because the pain invariably recurs in the amputation stump with increased severity.

VARICOSE VEINS

Individuals suffering from varicose veins are subject to four traumatic complications. They are ulceration, hemorrhage, phlebitis, and thrombosis.

Ulceration is most frequently precipitated by an injury to the medial aspect of the lower leg or ankle. The injury need not be severe. A small contusion, abrasion, or laceration is sufficient to start an ulcerative process. If the ulcer is treated with rest, elevation, local compresses, and elastic support before it becomes infected and regional induration supervenes, it will usually heal. However, in the more advanced cases, the underlying varicose condition must also be corrected with suitable treatment.

External hemorrhage from a traumatic rupture of a superficial varix can be quite severe. It is best controlled by a local pressure bandage until the bleeding vein can be ligated. More frequently, the bleeding is subcutaneous, where blood may infiltrate throughout the length and breadth of the leg. If the saphenous valves are incompetent, these patients may find it impossible to remain ambulatory because of pain felt at the site of the injury. A high saphenous ligation followed with an elastic stocking will enable them to resume work within a relatively short period of time.

Localized traumatic varicose phlebitis usually responds to rest, elevation, and local compresses. However, if the saphenous valves are incompetent, the phlebitis will recur when the patient gets out of bed; and a high saphenous ligation followed by the wearing of an elastic stocking are required. A spread of the phlebitic process up the thigh calls for an immediate high saphenous ligation to prevent an extension into the femoral vein.

Traumatic thrombosis of varices is a potentially serious injury, particularly if the saphenous valves are incompetent and if there are widely dilated varicosities running up the thigh to the groin. Under such circumstances a rapidly ascending thrombosis may suddenly develop; and I have seen several such cases of pulmonary embolism resulting therefrom. These cases call for immediate exploration and excision of the saphenous bulb. The bulb should be opened to ascertain whether it contains thrombotic tissue. I have observed several instances where the bulb contained a thrombosis which had already extended into the femoral vein. The thrombus was extracted, and the bulb resected after ligating it flush with the femoral vein. The postoperative administration of heparin prevented the formation of another thrombus within the femoral vein.

EFFORT THROMBOSIS OF THE AXILLARY VEIN

As the result of muscular exertion or strain, particularly with the arm abducted, a normal axillary vein may suddenly thrombose. The mechanism whereby thrombosis is induced is somewhat obscure. Within a few hours the entire arm begins to swell and soon reaches alarming proportions. The superficial veins become distended and small veins in the region of the shoulder, neck, and upper chest become prominent. At the beginning of the attack there is an associated reflex arterial spasm, and the arm is blue and cold. With bed rest, elevation, and local heat, a collateral venous circulation rapidly opens. Pulmonary embolism does not occur in these cases. Recovery is usually complete and permanent. However, there are instances where the thrombosed axillary vein gives rise to a chronic reflex vasomotor disturbance wherein the patient experiences repeated attacks of swelling and pain when any strain is thrown on the arm. Resection of the thrombosed venous segment is indicated should this occur.

TRAUMATIC THROMBOSIS OF THE DEEP VEINS OF THE CALF

This vicious syndrome has recently been the subject of numerous articles, and justifiably so. An injury to the muscles of the calf initiates a thrombotic process within the deep tributaries of the popliteal vein. An ascending thrombus forms which may reach up to the iliac vein. Should it detach, pulmonary embolism ensues. During the current year I have witnessed three cases of pulmonary embolism resulting from a traumatic thrombosis of the deep veins of the calf. One of these was fatal. Two types of injuries are the chief offenders. One is a deep contusion. The other is where a tearing of muscle fibres within the calf follows some unusual or poorly executed exertion.

The condition is vicious because its potential seriousness is not generally appreciated, and because it gives rise to so few symptoms and signs all of which are apparently innocuous. A person receives an injury to his foot or leg, and shortly thereafter pain in the calf of the leg and behind the knee and moderate swelling of the ankle and lower leg appear. If he goes to bed, pain and swelling rapidly subside; but when he resumes work, they recur. Examination reveals some edema about the ankle and leg accompanied by coldness and slight cyanosis of the foot. Deep manual pressure over the upper portion of the calf and behind the knee produces pain which can also be elicited by forced passive dorsi-flexion of the foot, (Homan's sign). With extension of the thrombus into the upper femoral vein, edema of the ankle and leg will be more pronounced and there will be tenderness over the course of the femoral vein in the thigh.

Treatment of Myasthenia Gravis With the Roentgen Ray

CHARLES D. ARING, M.D.

REMOVAL of the thymus gland has been effective in the treatment of some cases of myasthenia gravis,¹ so it would not seem illogical to expect somewhat comparable effects from roentgen ray irradiation. Such has proved to be the case in three female patients, all of the instances in which this form of therapy has been tried at the Cincinnati General Hospital.

CASE NO. 1

In February 1938, a 56 year old woman developed ptosis of the right eyelid, followed shortly by diplopia. Ten days later there had occurred difficulty in chewing and talking, and weakness of the muscles of the jaw, of the back of the neck, shoulders, and arms. The weakness had progressed until her admission to the hospital in July 1938, when there was complete paralysis of the right eyelid and of the muscles which closed the mouth. She supported the sagging mandible with a sling tied up over the top of the head. Talking tired her quickly. In June, 1938 she began to have spells of smothering and orthopnea.

On admission to the Neurological Service of the Cincinnati General Hospital in July, 1938 she was found to have complete ptosis of the right eyelid. Diplopia was intermittently present on left lateral gaze. Convergence of the eyes was weak. The unsupported jaw sagged wide open. There was marked bilateral facial weakness. At the end of conversation, her voice became lower and her enunciation less distinct. At the end of the day swallowing became difficult. There was weakness of the muscles of the shoulder girdles and arms. She responded well to prostigmine, 2 cc. of a 1-2000 solution produced considerable relief of all symptoms and signs for four to five hours.

A mediastinal tumor was demonstrated by roentgen ray examination. Roentgen ray therapy of the mediastinal neoplasm was begun on August 4, 1938, and continued through September 10, 1938. She received 27 treatments of 200 roentgen units each, a total of 5400 r. She received 1800 r. to each of three ports all 10x10 cm.¹ over the left breast,² in the lateral chest area between the left breast and the left axilla, and³ in the left posterior chest centering over the inferior border of the scapula, midway between the lateral axillary line and the spinal column. During this therapy she was taking eight 15 mg. tablets of prostigmine bromide daily by mouth. She gradually improved though she remained readily fatigable. Over the next two and one-half years, the myasthenia remained well controlled. She was taking 75 mg. of prostigmine bromide daily.

She was readmitted to the hospital on November 12, 1941, because of shortness of breath and upper abdominal pain of two months duration. At this time there were no neurological findings; in other words, the signs of myasthenia gravis

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had remitted rather completely. She was dyspneic and respirations were labored. She complained of substernal tightness. She noted that she had been having nocturnal attacks of dyspnea which would force her to get out of bed. She would sleep sitting beside the bed resting her head on the bed. Fatigability and weakness of muscles of the extremities could not be demonstrated on this admission.

She was given a second series of deep roentgen ray therapy beginning December 10, 1941 and terminating January 9, 1942. She received 200 roentgen units at each of 20 sessions, a total of 4000 r; 9800 r. in the two courses of treatment. Two ports, each 15x15 cm., were irradiated between December 10, 1941 and January 9, 1942, anteriorly in the area between the breasts, and posteriorly in the area between the scapulae. This treatment was discontinued because of the development of erythema of the skin. She was discharged from the hospital on January 13, 1942. During this hospital stay she had received a tablet of prostigmine bromide (15 mg.) orally on December 14, 1941 and another on December 28, 1941.

Measurements of the mediastinal tumor in the many teleoroentgenograms are recorded.

Date	Antero-posterior View Oblique measurement	Lateral View vertical measurement
7/21/38	5.2 cm.	5.0 cm.
8/19/38	4.5 cm.	3.5 cm.
12/15/38	3.0 cm.	3.5 cm.
8/9/39	The mass had disappeared	
2/3/40	3.0 cm.	
6/29/40	4.7 cm.	4.5 cm.
10/23/40	5.0 cm.	
3/7/41	7.0 cm.	7.0 cm.
11/14/41	7.5 cm.	
11/25/41	8.0 cm. (Bucky)	9.0 cm. (Bucky)
11/28/41	6.2 (Reduction thought due to repeated fluoroscopy)	
12/16/41	5.0 cm.	
12/29/41	4.5 cm.	
1/23/42	4.0 cm.	
4/22/42	4.0 cm.	
8/18/42	4.0 cm.	7.0 cm.

In September of 1942, the patient reported that she felt more like herself than at any time since the onset of her illness in 1938. She had taken one tablet of prostigmine bromide on the day of her last visit to the clinic, and no evidence of

Submitted November 12, 1942.
From the Neurological Service of the Cincinnati General Hospital and the University of Cincinnati College of Medicine

any weakness could be demonstrated on that afternoon. The remission continues in February, 1943.

This 56 year old woman has had a rather complete remission from myasthenia gravis for four years, apparently induced by deep roentgen ray therapy. She had received considerable prostigmine bromide during the two and one-half years immediately following the initial series of roentgen ray treatments. After the second series she received minimal amounts of the drug. She had been confined to the house in 1938, now she is able to be active.

Case 2. A 38 year old woman first noticed unusual fatigue in September, 1938. In November, 1938, ptosis occurred followed in a day by diplopia. Ptosis and diplopia cleared gradually over three weeks. In February, 1939, she experienced difficulty in speaking (nasal tone and poor enunciation), and severe generalized fatigue most obvious in the upper extremities which cleared in about a week. Up to the time of her admission to the Neurological Service of the Cincinnati General Hospital on February 6, 1940, she had episodic bouts of any one, or combinations of the symptoms described above. The symptoms were considerably worse in the evening than in the morning, and had become more severe and prolonged with the passage of time. In the week before entry to the hospital she had had difficulty in swallowing, and could not take solid food.

Abnormalities disclosed in the admission examinations were bilateral marked ptosis; the left eye could be moved to the right moderately far, downward well, to the left or upward not at all; the right eye could be moved to the left and downward, but not to the right or upward; weakness of masseter muscles; the upper lip could be elevated but could not be drawn laterally, the eyes could not be completely closed and there was considerable weakness of movements of the forehead; the palate moved hardly at all; speech could not be understood; the tongue could be barely moved and the tip protruded just beyond the anterior incisor teeth; fluids were regurgitated through the nose; repetitive movements of the hands caused some weakness eventually, and there were hyperactive tendon reflexes.

While she got some relief from the sublingual use of prostigmine bromide (7 to 15 tablets of 15 mg. daily), combined with ephedrine taken orally, the improvement was never great though it was definite. With the use of these drugs, she could swallow and there was some improvement in the movement of the eyes. With large doses of prostigmine given parenterally all the signs could be made to improve considerably.

On May 11, 1942, thorough fluoroscopic examination and lateral roentgen ray plates of the chest failed to reveal a mediastinal mass. Thymus gland removal had been discussed with her previously and she refused the operation. Roentgen irradiation of the thymus region was begun on May 19, 1942, and discontinued on June 18, 1942. She received ten treatments and a total of 2400 r.; 1200 r. over each of two ports measuring 10x15 cm., anteriorly over the supra-sternal notch and upper half of the sternum and posteriorly over the upper thoracic vertebrae.

She soon noted less fatigue in the upper extremities and could manipulate the tongue much

better. She noted that she had received more benefit from roentgen therapy than from the prostigmine. The dose of this drug was reduced to four 15 mg. tablets a day, sublingually. The neurological examination remained virtually unchanged except for the lack of fatigability in the upper extremities.

There is no question that this patient felt considerably better after roentgen ray therapy. She had always maintained a healthy attitude toward her illness and it seemed unlikely that suggestion was a factor. Many of the neurological signs remained unchanged, possibly severe signs of such long standing are not reversible.

The patient developed a mild upper respiratory infection on September 26, 1942, and died unexpectedly one day later while resting in bed. This mode of sudden death is not unusual in myasthenia gravis. Autopsy examination revealed no thymus tissue.

Case 3. A white woman of 41 was first admitted to the Neurological Service of the Cincinnati General Hospital on October 10, 1940. On July 10, 1940 she found it difficult to chew or to swallow. Two weeks later she noted in addition, dimness of vision and staggering gait. Soon she regurgitated through the nose food which she had attempted to swallow. She tired easily and had to rest frequently. In August 1940, she developed right ptosis, and had to take to bed because of generalized weakness. Two weeks later she could not sit up in bed unaided, and her jaw sometimes would fall open.

Abnormal signs in the admission examination were moderate bilateral ptosis; some weakness of eye movement on repeated testing; the mouth could be opened voluntarily only partially; the muscles of mastication were weak, she could not close her mouth against resistance; weakness of the facial musculature; the soft palate could be moved slightly; the voice was weak; she could not elevate the shoulders well, the tongue tip protruded slightly beyond the anterior incisor teeth; and there was generalized weakness of all of the musculature of the extremities. She was unable to attain a sitting posture from the reclining position.

She responded fairly well to parenteral prostigmine. She could eat but she could not carry the load of her housework. She had to take 15 mg. of prostigmine bromide sublingually before meals to insure some ability to chew. She felt fatigue in the limbs and neck about three hours after taking prostigmine. She was unable to maintain any posture against resistance, even a year after she began to take the drug. From April to July, 1941, she took six 15 mg. tablets of prostigmine bromide daily, also ephedrine sulfate, grains 3/8 three times a day, and from 6 to 7 grams of potassium chloride daily. She said the prostigmine held her so to speak, but that the ephedrine was a requisite for when she was without the latter she could not get out of bed by herself. If she missed a dose of prostigmine she had great difficulty in swallowing. Diplopia and blurred vision were the first heralds that she needed a dose of prostigmine, then her extremities would not work properly, then pain occurred in the eyes on looking laterally or upward. During these months she fell frequently in the after-

noons because of weakness, also she had bouts of diplopia, and inability to cough up mucus that collected in the throat at night. Muscle power was weak in all extremities.

On October 26, 1940, fluoroscopic examination of the chest had not revealed a mediastinal mass. On April 24, 1942 combined fluoroscopic and radiographic study demonstrated a mass situated anterior to the ascending aorta which measured 3x2 cm.

On March 24, 1942 it was observed that she could elevate the eyes only the slightest, lateral movements were full, though she could not maintain lateral fixation of gaze. All the movements of the face, eyelids, and forehead were weak and got weaker on repeated movement. The frontal incisor teeth could be separated a distance of 4 cm., but not against resistance. The voice was weak.

Twelve deep roentgen ray treatments totalling 1900 r. units were administered through two ports measuring 10 x 15 cm., beginning April 24, 1942 and ending June 2, 1942. Anteriorly the port was over the sternum and posteriorly between the scapulae; treatments were alternated between the two areas. By May 21, 1942, she reported marked improvement which has continued to date. She gradually reduced her medication spontaneously. At the last thorough examination on September 15, 1942, the left eye elevated 5 mm. above the midline horizontally, the right 2 mm. There was no visual distress. The upper lip elevated well, but could not be moved laterally. Other facial movement was considerably stronger, but not yet normal. She could hold the mandible open against resistance. Speech was normal as were movements of the tongue and palate. There was no weakness in the extremities and ready fatigability had disappeared. She was doing the most of her housework. She was taking 15 mg. prostigmine bromide every third or fourth day, and she thought that she could dispense with all medication. The remission continues in February, 1943.

This 41 year old woman had been very badly crippled with myasthenia gravis for two years. The thymus could not be demonstrated three and a half months after the onset of her illness. A mediastinal mass was demonstrable 22 months after the first symptom of myasthenia gravis made its appearance. There seems to be no question that the startling improvement directly attended irradiation of the thymus. It is expected that she will soon be restored to her original occupational level.

Obviously it is not yet possible to predict the length of remission of myasthenic symptoms that may be obtained with roentgen ray therapy. The data obtained from Case 1 would indicate that the thymic disorder can be alleviated by this method more than once in the same person. Whether or not benefit may be obtained by the irradiation of thymus gland not demonstrably enlarged cannot be stated. Information gained from Case 2 would suggest that cases without demonstrable thymus enlargement by roentgen ray examination might be improved. Most certainly they should be tried on irradiation.

The optimum amount of this therapy in myasthenia gravis is not known. Deep roentgen ray therapy to the thymus gland would appear to be a relatively harmless procedure in experienced hands. It is surely less hazardous to recommend to the myasthenic patient than the surgical removal of the gland. If the latter therapy proves to be the method of choice, it is possible that preliminary irradiation might facilitate the selection of cases to be benefited by surgery.

As Harvey, Lilienthal, and Talbot have noted^{2,3}, the analogy between myasthenia gravis and partial curarization suggests the hypothesis that a circulating inhibitor substance may be responsible for the primary neuromuscular defect. These cases add to their evidence and that of others that this substance may be elaborated in the thymus gland.

SUMMARY

The symptoms of myasthenia gravis appear to be alleviated by deep roentgen irradiation of the thymus gland.

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The Time Element

In the practice of medicine the importance and significance of the time element is frequently unrecognized. Many lives have been sacrificed on the altar of delay. This might be interpreted as a sad commentary on medical education and clinical acumen, if the entire truth were told.

Possibly the whole matter goes back to too much emphasis on scientific education. What a curious statement! Scientific education should make our professional service of infinite value. However, it often results in just the opposite. Too much emphasis in modern education may be placed on instruments of precision and laboratory studies in order to make a diagnosis. How easy it is in an obscure case to "send the patient to the X-ray man to learn what he says," or "to have blood and other laboratory tests made in order to reach a diagnosis." This, too often, is an example of the utmost in childlike simplicity. Our clinical sense is subjugated to scientific methods. If these do not confirm the diagnosis, or if they point to something else, we all too often supinely give up our clinical opinion and lean completely on the scientific data for the diagnosis. —Editorial, *Penna. Med. Jour.*, Vol. 46, No. 1, October, 1942.

The Importance of Sulphur in Nutrition

JONATHAN FORMAN, M.D.

SULPHUR is a non-metallic, combustible, fitful, volcanic element found in beds of clay. It is also found in combination with certain metals forming sulphates and sulphides. The reaction of soils can be controlled through the use of sulphur or limestone. Sulphur when oxidized to sulphuric acid neutralizes alkalies.

For a long time the importance of sulphur in plant and animal economy was not appreciated. Later, it was shown that the content of sulphur in plants and soils is quite similar to that of phosphorus. And the problem of the economy of these two elements is also somewhat similar. As Baer points out, there are however certain points in which they differ. Sulphur is not required in such large amounts. In coal burning areas the soil supply of sulphur is replenished from the atmosphere. The sulphur which is supplied in the rainfall is in most instances adequate. Sometimes, however, it is too much. For instance, the sulphur content of rain, snow, and dust in Minnesota varied from 100 pounds per acre per year in Minneapolis to less than five pounds in the northern part of the state. At Urbana, Illinois, near the corn belt and some distance from large cities and smelters, the sulphur content of the rainfall was found to be 40 pounds per acre per year. Erosion and leaching takes more sulphur out of the soil than it does phosphorus. On the other hand, continuous cropping and pasturing for cash money does not take out as much sulphur as it does phosphorus.

Until recent years the use of superphosphate as a source of phosphorus in mixed fertilizers has been insurance against sulphur deficiency. If, however, concentrated fertilizers are used, which contain no sulphur compounds, a deficiency of sulphur may develop on light, sandy soils.

There are soil bacteria which are known as **sulphur bacteria**, because they secure the energy necessary for their life by oxidizing the sulphur compounds found in the humus. In doing this sulphur is freed from the humus and converted into compounds that can be absorbed and used by the plant roots. In the plant the sulphur is made into protein. In making protein, the most abundant elements are carbon, hydrogen, oxygen and nitrogen. These are accompanied by very small amounts of sulphur, phosphorous and iodine, and a few other elements—differing in different proteins.

There is some evidence that the element may have a role in the development of chlorophyll. Sulphur is seldom lacking in field vegetables. Not only are these plots usually well supplied with sulphur through the use of commercial fertilizers, but truck gardens are often located near cities. Sulphur deficiency symptoms develop slowly in tomatoes. Most of the data we have is based on pot experiments. So, too, with the cotton plant, a lack of sulphur is indicated by the dwarfing of the plant and a change in the color of the leaves. In Georgia and South Carolina some blistering of the leaves of tobacco has been associated with a lack of sulphur. As a rule the effects of this deficiency have been apparent under field conditions in the early stages of growth and during dry periods. Recovery takes place rapidly and completely when rain supplies the needed sulphur. The cured leaves of tobacco suffering from the lack of sulphur show color effects that are sometimes good and sometimes bad. In the flue-cured leaves of Georgia and South Carolina this may be of advantage, providing there is not too great a lack of sulphur; it produces more desirable colors than does an overabundance of sulphur. In Maryland leaf, on the other hand, an abundant sulphur supply produces more desirable colors.

Sulphur deficiency in citrus fruits generally consists of a chlorosis quite similar to that due to nitrogen deficiency. There is some "dying back" as the deficiency progresses. The fruit is lighter green. It is sometimes also misshapen with a pulpy and juiceless interior. Here again rain usually supplies necessary sulphur, not because of the atmospheric content, but because many sulphur compounds are only slightly soluble in the soil solution.

According to Salter, 75 pounds of sulphur are needed by the corn plants of one acre which is producing at the rate of 100 bushels to the acre. There is great variation in the sulphur content of various foodstuffs, depending upon the variety, upon the season and upon the soil.

Here are some figures showing the extent of these variations. Alfalfa, three-fold. Apples three-fold. Beans, twelve-fold. Cabbage, two-fold. Celery, three-fold. Clover, six-fold. Corn, three-fold. Kale, two-fold. Oats, four-fold. Peas, two-fold. Potatoes, seven-fold. Rye, five-fold. Soy beans, four-fold. Spinach, seven-fold. Strawberries, four-fold. Sugar beets, four-fold. Sugar cane, seven-fold. Timothy, thirteen-fold. Turnips, seven-fold. Wheat, three-fold. That

This is the sixth of a series of editorial summaries on the so-called trace elements on Conservation, Nutrition and Human Health.

vegetables contain a goodly amount of sulphur can be easily recognized in passing a cabbage field which is thawing out after a killing frost. The smell of hydrogen sulphate coming from the decomposing plants is a potent reminder that cabbage is rich in sulphur. In fact, plants frequently contain more sulphur than phosphorous, calcium or magnesium. And yet we seldom think of sulphur. In plants, sulphur is built into two of the 23 amino-acids that go to form protein. So sulphur does play an important role, not only in the form of an inorganic substance, but also in the complex organic compounds. If the diet contains sufficient proteins of the right kind, sulphur will always be furnished in an adequate amount. According to McCollum, the sulphur-containing amino-acid of preeminence is methionine, for apparently this compound alone can satisfy the entire requirement for sulphur containing amino-acids. The dietary value of other such compounds depends upon the capacity of the body to convert them into methionine or cystine for its own purposes.

Most of the sulphur used by animals in the formation of protein and for other purposes probably comes from the cystine and other organic sulphur compounds in their feed. The common livestock feeds are low in cystine and do not produce good results unless this lack is corrected. Soy beans for instance, are somewhat deficient in cystine, but this is corrected when they are combined with cereal grains. This combination is best when meat scraps, fish meal, etc., are used as supplemental feedings for swine and poultry.

Since wool is especially rich in cystine, sheep have a higher sulphur requirement than do other classes of livestock. It seems, however, that sheep can use other sources of sulphur for the formation of cystine in wool, perhaps to the action of bacteria in their paunches.

Lean meat, eggs and milk are the important sources of sulphur in human diets, and in ordinary times there is no danger of our intake of sulphur being inadequate.

Diet and Life Span

Since the scientific information on the kinds and quantity of foods required for growth and health is very recent, considering the history of the human race, and that this information is still fragmentary, it is evident that in the past man's diet, both as to kind and quantity, was determined by appetite, hunger and the availability of the foods. We may, therefore, assume that underconsumption and excess consumption of foods, starvation and gluttony, emaciation and obesity are phenomena as ancient as man himself.—A. G. Carlson, Ph.D., Chicago; Northwestern Med., Vol. 42, No. 2, February, 1943.

Latent Bronchogenic Carcinoma

Case Record Presenting Clinical Problems

HOWARD T. KARSNER, M.D.

A. I., a white male, 37 years old, first entered the Hospital February 26, 1937 because of frequent and severe epistaxis which had lasted three months. There was a polypoid, firm, rounded mass which obliterated the middle meatus on the right side of the nose and a few small firm lymph nodes in the neck. A biopsy specimen of the nasal lesion was diagnosed "round cell carcinoma." Roentgen therapy was followed by disappearance of the tumor. On a second admission three months later, he complained of frontal headache, obstructed nose on the right and a considerable degree of exophthalmos of the right eye. Roentgen therapy resulted in complete relief. On a third admission, March 7, 1939, he was found to have a destructive lesion of the left frontal bone about 2 cm. in diameter and considerable enlargement of cervical lymph nodes. Again roentgen therapy was successful. Several other similar lesions appeared in the skull subsequently and all responded well to irradiation.

Bilateral irradiation cataracts developed and were removed surgically in June and November of 1940. In June of 1941, he complained of dry cough and the roentgenogram showed a generally circular shadow about 3 cm. in diameter in the right mediastinum and extending into the hilum of the right lung. At this time the lesion in the left frontal bone showed considerable calcification. Roentgen therapy brought about recession of this thoracic mass, but in January 1942 there was a shadow of about the same size, with a smaller one at the left hilum; at the right apex there was consolidation and a small cavity suggestive of abscess. He had marked cough and expectorated much mucopurulent sputum. At this time there were enlarged lymph nodes in the neck. Roentgen therapy resulted in disappearance of these nodes but was ineffectual in the thorax. There was another admission in October 1942, because of increase in the pulmonary symptoms. His last admission, November 8, 1942, was because, after a month of painful coughing and marked dyspnea, he had become exceedingly weak. He died two days later.

Autopsy (14676), by Dr. E. F. Koster, disclosed a small cell carcinoma of the right main stem bronchus extending into the hilum of the right lung and along the left main stem bronchus, with stenosis of both bronchi. The bronchopulmonary and mediastinal lymph nodes were extensively involved. There was widespread chronic bronchitis, as well as bronchiectasis most pronounced in right upper and middle and in left lower lobes. The right upper lobe showed a bronchiectatic cavity and marked fibrosis. The lungs showed chronic emphysema and bilateral bronchopneumonia. A small metastatic nodule was found in the liver. There was focal sclerosis

This is the fourteenth of a series of "Case Records Presenting Clinical Problems" from the Clinical Pathological Conferences of the Department of Pathology, Cleveland City Hospital.

From the Department of Pathology of Cleveland City Hospital and the Institute of Pathology, Western Reserve University, Cleveland, Ohio.

of the calvarium in the sites of the previous tumors. There was no tumor in the neck.

The term latent in connection with this case is employed in the sense of Willis¹, who points out that primary tumors in various situations may give no indication of their presence until a complication occurs. Willis found several instances of bronchogenic carcinoma which were first manifested by lesions in the central nervous system, the skeleton, the lymph nodes and in certain other situations such as intestine and subcutaneous tissues. This condition is spoken of as "precocious" metastasis, but the term precocious applies clinically only. Gewanter, Mitchell and Angrist² speak of latency as meaning "a cancer whose metastasis causes the initial symptomatic picture." They reported 25 such cases, of which eight were primary in the lungs. The cases represented about 6 per cent of the cases of cancer in a series of 2,514 autopsies.

In the patient reported here, three years elapsed between the identification of the tumor in the nose and the time that pulmonary symptoms occurred and a lesion in the thorax was identified by roentgenogram. In the meantime several lesions appeared in the skull. All the lesions were responsive to X-ray treatment, and as far as could be determined by autopsy, those in the nose and skull had disappeared completely. The fact that the first tumor seen in the hilum of the right lung was also materially reduced by roentgen therapy is a plain indication of the susceptibility of this lesion to treatment by irradiation. It may well be that the more superficial location of the tumors in skull and nose is responsible for their eradication by roentgen therapy, as contrasted with the deeper situation of the lesion in the lung. Also to be considered is the fact that the lesions readily reached by therapy were certainly discovered at an earlier stage of their development than was true of the primary bronchogenic carcinoma.

The autopsy disclosed bronchogenic carcinoma of the small cell type and the lesion in the nose was wholly comparable microscopically. The small cell carcinoma is a common tumor of the lung, whereas it is exceedingly rare, if it occurs at all in the nose in exactly that microscopic form. The distribution of the tumor in the lungs is just what would be expected of a bronchogenic carcinoma. Metastasis of any tumor of the nose to the lungs is rare. The distribution of metastases in this case shows the bizarre character commonly encountered in bronchogenic carcinoma. On these grounds it is reasonable to suppose that the tumor was primary in the bronchus.

The fact that the microscopic picture of the tumor of the nose does not correspond closely to any of the tumors often encountered in that

situation should have led to the suspicion that it was metastatic rather than primary. Had that suggestion been offered, it is probable that extensive study would have been made to disclose a primary source. There is no real reason, however, for assuming that at that time the tumor in the lung would have been discovered, nor is it possible to say how soon before its final identification it could have been found. Autopsies have shown small bronchogenic carcinomas not large enough to be visible in the roentgenogram and a certain time must elapse before roentgen demonstration is possible.

It is generally recognized that a duration of five and one-half years for a bronchogenic carcinoma is unusual. It is important, however, to realize that the usual estimate of duration is based on the time that elapses between the discovery of the tumor and the death of the patient. Thus when it is said that bronchogenic carcinomas have a duration from a few weeks to three or four years, this period begins at the time when the tumor becomes clinically manifest. In this case, the tumor was not clinically evident as bronchogenic carcinoma until three years after the tumor of the nose occurred and a year and a half before the patient's death. This same fault in estimating duration of life applies to cancers of other forms and in other situations. Classes of tumors, grades of tumors and individual tumors show considerable variation in respect to duration of life. This is due, in part at least, to difficulty in determination of the moment of inception of the tumor, especially when it is deeply seated.

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The Modern Attack on Tuberculosis

Pulmonary tuberculosis rarely develops in an individual after 35 if at that age the roentgenogram shows no evidence of the disease. In spite of this we should keep in mind the fact that the mortality rate from tuberculosis is highest in the older age groups. The highest rate for men is after age 50; for women the rate is almost as high in the sixties as it is in the twenties, and highest of all in the seventies. Therefore, we should give more attention to the later years of the life line and not feel so self-satisfied when we roll up impressive clinic figures which, if analyzed, would show that the total was to a great extent made up of children. The oldsters will yield a greater percentage of tuberculosis for number examined than will the youngsters. These individuals are shy, however, and it requires more wile and persistence to lure them into the clinic's net.—Chadwick and Pope, published by The Commonwealth Fund, New York.

Economic State and Mortality In Appendicitis

From the Cleveland Appendicitis Survey*

H. R. HATHAWAY, M.D., LAKEWOOD, and RALPH M. WATKINS, M.D., Cleveland

IN previous reports^{1,2,3,4} the Survey Committee has presented findings from the twelve-year study of most of the acute, peritonitis and abscess cases of appendicitis which have occurred in greater Cleveland. We covered the years 1930 to 1942 and collected 19,401 cases for this purpose.

For these types of appendicitis our most fundamental discovery was that the mortality rate had dropped from 6.8 per cent in 1930 to 2.8 per cent in 1941. In the reports above noted we have tried to explain why, in our estimation, this excellent decline in mortality has occurred.

We have previously analyzed the problem from certain angles as follows:

1. **Use of Drainage.** The less drainage used the lower is the mortality rate. There has been a marked decrease in the incidence of drainage in the past twelve years.

2. **Type of Anesthetic.** The trend over this period has been rather rapidly away from inhalation anesthesia toward spinal. We cannot prove that this has been a factor in our mortality decrease.

3. **Type of Incision.** There is a somewhat lower death rate and much lessened convalescence period if the McBurney incision is used. This employment is definitely on the increase and this is a factor, perhaps minor, in the diminishing fatality rate.

ECONOMIC STATE

In order to determine the possible effect of the economic status of the patient on mortality rates in cases of operated acute appendicitis with and without complications, we have chosen to compare these rates in patients admitted to our hospitals as private patients against the mortality rate in staff patients.

DEFINITIONS

A private patient is one admitted, operated on and treated in the hospital by the physician chosen by the patient, the entire cost of hospital and physician's care being paid for by the patient.

On the other hand, a staff, or charity, patient because of low income is admitted to the hos-

pital through the out-patient department of the hospital. Part or all of the hospital expense is paid through charity or taxes and he is cared for by the surgical staff of the hospital free of charge.

STAFF PATIENT DELAY

In the first 10 years covered in the study, our tabulations show that the private patient came to the surgeon's hands 12 hours earlier than the staff case.

In the past two years the average delay of the private patient from time of first symptoms to operation was 37 hours, for 2951 patients. In these two years there were 651 staff patients and their average delay was 46 hours, or nine hours longer. These figures include all types of appendicitis. We have not yet been able to break down all the staff and private cases into the divisions of acute, peritonitis and abscess but we expect to find a higher percentage of complications in staff patients because of their longer delay.

FEWER STAFF CASES

In one way we have been fortunate, that the study embraces the past 12 years because of the marked changes in the financial state of the populace. The period covers comparative plenty at the beginning, then deep depression and then recovery not only to normal but to a point far above that of normal prosperity.

THE PROPORTION OF PRIVATE AND CHARITY PATIENTS

Year	Private Cases	Percentage	Charity Cases	Percentage
1930.....	1107	77.1	329	22.9
1931.....	1062	72.9	394	27.1
1932.....	1013	71.5	404	28.5
1933.....	1006	71.3	405	28.7
1934.....	1158	72.6	436	27.4
1935.....	1138	73.3	415	26.7
1936.....	1287	78.2	358	21.8
1937.....	1356	77.0	406	23.0
1938.....	1285	74.4	441	25.6
1939.....	1378	77.9	391	22.1
1940.....	1330	79.0	354	21.0
1941.....	1621	85.0	297	15.0

*Sponsored by the Cleveland Academy of Medicine and the Cleveland Foundation.

Other members of the Committee are Drs. John D. Brett, H. H. Pevaroff, D. C. Darrah, R. M. Hosler, J. H. Lazzari, C. W. Rotter, S. J. Restifo, W. A. Boukalik, John Kelker, John Renshaw, A. F. Sydow, B. B. Larsen, J. M. Rossen, John Budd, S. L. Feldman, R. J. McNamee, P. L. Suhay, Geo. Crile, Jr., Fred Kelly.

The above table corresponds very closely to the general economic conditions of the years. Thus, in 1930, when we were still fairly well off, about four out of five were private patients. Then the depression came and reached its depth

in 1933 when three of ten were charity cases. Improvement of conditions is reflected in the figures from 1934 to 1938 with a short set back in that year, but the rate regains its stride in 1939 and 1940. Then came the threat of war with its great impetus to industry and in 1941 only three of twenty patients are listed as of the charity class.

It is possible, if we had the statistics for 1942, with very little unemployment, that there would be only a few charity patients.

MORTALITY, STAFF AND PRIVATE

We know that staff patients delay operation longer and believe our final figures will show that they have more complications. We know, further, that their mortality rate is much higher than that of private patients.

For the 12 years there were 14,744 private cases of which 636 died, a rate of 4.3 per cent.

In the same period there were 4,628 staff patients of whom 299 died, or 6.5 per cent.

Thus the mortality rate for staff patients is almost exactly 50 per cent higher than that of private cases.

SUMMARY

From the 1930-1941 survey of Cleveland appendicitis cases we find:

1. Staff patients delay operation longer than private patients.
2. The death rate for staff cases has been 50 per cent greater than that of private cases.
3. There has been a significant decrease in the proportion of staff patients, especially recently, and a corresponding increase in private patients.
4. We feel that the improved economic state of the country, with the reflected increase in private patients, has helped in lowering our appendicitis mortality rate.

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4. The McBurney Incision in Appendicitis, John D. Brett and Ralph M. Watkins, Ohio State M.J., Vol. 39, No. 2, Feb. '43

For every patient with true myxedema, there are 100 patients who have a low basal metabolic rate without myxedema, and in many instances the low basal metabolic rate is a part of their general clinical picture rather than the cause of their condition. Raising the basal metabolic rate of individuals who do not have myxedema may or may not produce any clinical signs of improvement.—Edward H. Rynearson, M.D., Rochester, Minn., Rocky Mountain M. Jour., Vol. 39, No. 12, December, 1942.

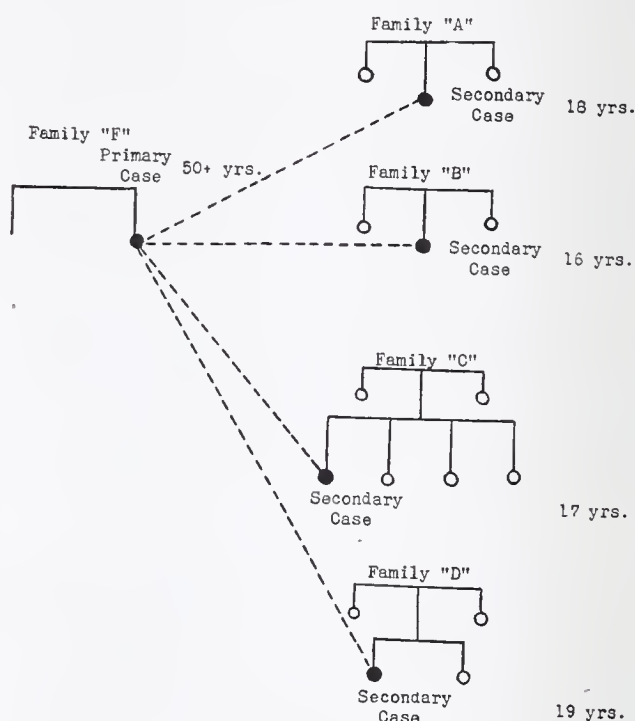
Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

PULMONARY TUBERCULOSIS RESULTING FROM EXTRA-FAMILIAL CONTACTS

In mass surveys there is not the opportunity for individualization of cases that is necessary to discover extrafamilial sources of tuberculosis infection. Rural communities with low death rates have afforded excellent opportunities for demonstrating the importance of extrafamilial contact in the spread of tuberculosis in the community.

In Massachusetts a five-year survey on the control of tuberculosis was recently conducted in a county considered to be representative of a rural New England community, and with next to the lowest death rate from pulmonary tuberculosis of any county in the state.



It was during this survey that attention was focused on the importance of extra-familial contact. The diagram here shown is a graphic representation of the spread of tuberculosis among several families in the same community. The discovery of the source of infection required a considerable period of time and a careful evaluation of certain obscuring factors.

In March, 1935, and August, 1936, two cases of pulmonary tuberculosis were reported in a small community of approximately 4,000 persons. Both cases were high school girls, aged 18 and 16 respectively. They were the only young persons in their respective homes. Members of family "A" were examined and were found to have no

evidence of tuberculosis. Family "B" refused examination at the time, but were subsequently examined and found to be negative for tuberculosis. There was no history of tuberculosis in either of the families. Both households used raw milk from tuberculin-tested herds, but obtained from different dairies. The two girls were not "chums" but attended the same high school.

A check with the school physician revealed that none of the teachers had tuberculosis, with the possible exception of one. She had suffered from pulmonary tuberculosis two years prior, but was discharged from the sanatorium as an arrested case. However, because several of the pupils complained that this teacher coughed during her classes, several sputum examinations were made by the school physician, all of which were found to be negative.

The situation rested at this stage until April, 1937, when a 19 year old girl, graduated from the same high school in 1936, was found to have tuberculosis. Careful inquiry revealed that she had little or no contact with either of the other girls at the school. She had, however, taken two courses given by the teacher who was under suspicion. A check-up by X-ray in her family showed no evidence of active tuberculosis, nor was there any family history of the disease.

Again the evidence pointed to someone in the high school as a potential source of infection for these three girls. The teacher, aware that she was under suspicion, returned to the sanatorium for a check-up. A negative report was received by the school physician from the sanatorium.

In December, 1937, a fourth girl, aged 17, was found to have pulmonary tuberculosis. She, too, had had the same teacher in some of her classes. She knew all three of the girls but denied close friendship with them. Her family was examined by X-ray by a local physician who reported negative findings. Subsequent examination of these films confirmed the original report. At this stage there seemed to be almost overwhelming evidence that these girls had had a common source of infection, and the logical place to search seemed to be in the high school.

Further visits were made to the families to recheck their contact histories. They had all used raw milk from tuberculin-tested herds, but only two of the families took milk from the same dairy. During one of these visits to family "C" a casual remark opened a new approach to the problem.

It was found that all four families attended the same church. This was a remarkable coincidence. A rough statistical calculation placed the church under strong suspicion on the basis that in the school population considerably less than one-half of one case would be expected to have occurred by chance among this religious denomination if the source of infection were in the school. Inquiries regarding attendance of the girls at the

church, revealed that three of them sang in the choir and all four of them had attended social functions on numerous occasions.

A careful check-up of the reported cases and deaths in the community failed to show any of them to be members of this church. However, during the investigations relative to the church membership it was learned quite by accident that the wife of the former minister had developed pulmonary tuberculosis and had entered a sanatorium in another state within three months after leaving the parish, early in 1936.

Further inquiry revealed that the minister's wife also sang soprano in the choir and took communion from a common cup before three of the girls who sang in the choir, as well as before the fourth who was not a choir member. Thus, a common source of infection was found for these four girls in their fellow church member. On the basis of X-ray, sputum examination and statistics, the school teacher, an arrested case, was eliminated from suspicion.

Aside from determining the true source of infection for these four girls, several other factors of epidemiological significance are manifested. In this particular instance, the range of age was from 16 to 19 years and all cases were girls, again revealing the importance of age and sex. However, there is also evidence at the present time to show that the age of highest mortality from tuberculosis is gradually shifting to the older age groups.

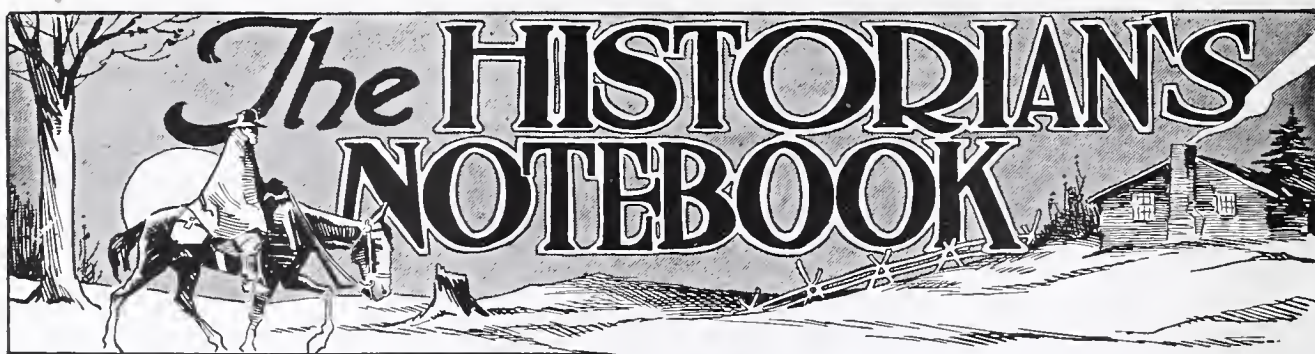
A further factor of importance is that three of these girls had positive sputum at the time diagnosis was made; two of them were moderately advanced and two far advanced at the time of diagnosis.

There was a high fatality rate. Two of the girls have died; one remains in a sanatorium and the fourth has been discharged from the sanatorium as an arrested case.

Although three of the girls sang in the soprano section of the choir, there was ample opportunity for contact between the fourth girl and the minister's wife through social functions and Sunday School. These contacts were regular, usually once or twice a week, over a period of several years.

The question of the common communion cup is a moot one. It is reasonable to suppose that droplet infection through contact at choir practice and social functions might well be sufficient to result in active disease. The dosage of infection was probably large if consideration is given to the cumulative effect resulting from frequent exposures at fairly regular intervals.

Failure to find the source of infection within a household should not preclude further attempts at finding the source case.—C. W. Twinam and Alton S. Pope, *Am. J. of Pub. Health*, Nov. 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., Cincinnati, Ohio

(Continued from February issue)

AT the 1853 State Meeting the unusual report was that concerning the recovery of a stab wound of the left kidney following operation.

The June, 1854, yearly meeting was held in Cincinnati. The Report on Surgery was by G. Volney Dorsey of Piqua. In this paper the author described in detail a head injury case in which about one and one-half by two inches of the left parietal bone was depressed and "the substance of the brain much injured". The left side of the patient was paralyzed and "he was entirely insensible". Violent inflammation followed removal of the bone causing the brain compression and extensive suppuration of the wound followed with a fungus growth shooting from the brain. The wound of the head discharged offensive matter. The fungus was frequently removed with scissors and a piece of sponge laid over it, and the sheets of lead laid over it were held in place by a roller bandage. The pressure so applied gave much relief, for while it was kept up he was quiet and easy but if the bandage became loose he was restless and unmanageable. Occasional applications of nitrate of silver were used for three weeks when the fungus ceased to grow and the wound commenced to heal. After about seven weeks he was restored in mind though the left-sided paralysis continued. Under Galvanism the leg was freed from paralysis so that he could walk about and was cheerful, with a voracious appetite. Later the wound became protuberant so that a lancet was used without scissors. He died about four and one-half months after the accident. Dr. R. Thompson showed a gauge for bone-cutting forceps that was invented in November, 1848, and, also, a bone perforation forceps.

In 1857, State Meeting was held at the City of Sandusky, and a report of The Committee on Surgery by John Dawson, M.D. Chairman was interesting. The article was divided into four parts, namely: 1. The Age of Scientific Surgery. 2. The Mechanical or Operative Department of Surgery. 3. The Scientific, or Pathological Department. 4. Where Per Centum of Success Justifies a Surgical Operation. The article is interesting to read today as it so well demonstrated the problems of the surgeon from Hippocrates to more modern times.

The meeting in 1859 was surgically interesting because of the report of two cases of "Inguinal Hernia—Permanent Cures" by R. Thompson, M.D. The report of the Committee on Surgery for 1859 had an article on "Ovariectomy in Ohio" by J. W. Hamilton, Professor of Surgery of the Starling Medical College. The following statement was made—"Our state is now admirably adapted to it. It has probably been the scene of more ovariectomies in proportion to its population than any other portion of the world".—"The time is past when a characterization of it as "belly ripping" will either be offered or received as final". Dr. Ephraim McDowell of Kentucky did the first ovarian operation in Ohio in October, 1826; later Dr. Mussey of Ohio did the second. Dr. J. D. Bowels of Hamilton County was the first to succeed in ovarian removal followed by the cure of his patient. At this 1859 meeting in a "Report on Fractures", by R. Thompson, M.D., he made a statement, true then and it still is a positive statement of fact which even today is sometimes overlooked: "When a surgeon is engaged in a case, the entire responsibility should be his".—"Indeed responsibility, like property, may be squandered by division".—"But while I would advise all to place themselves in safe relations to their patients by undertaking nothing above

their skill, I am free to express the opinion that as fractures constitute that class of cases upon which more suits for malpractice are based than all others, I firmly believe their treatment may be simplified—so as to exclude them from the list of causes of all suits for shortening and deformity of limbs”.

The Committee on Obstetrics with M. B. Wright as chairman, called attention to a case report on Caesarian Section and Rupture of the Uterus at the 1860 annual state meeting at Ohio White Sulphur Springs.

In writing of the early activities of Ohio's doctors doing surgery, it is interesting to note that five of the thirty-five legitimate medical journals in the United States were published in Ohio. The other thirty came from thirteen states. This was and still is the doctor's legitimate way to advertise to other doctors his ability to care for disease.

Very little of unusual surgical interest is found recorded by Ohio doctors in 1861-1862 at the state meetings.

Alex McBride of Berea wrote an interesting paper in 1863 on “Remarks on Certain Adipose Tumors”, stating examination of Civil War soldiers showed adipose hernial tumors of the linea-albae in one of 1,000 invalid soldiers, and in a later report one of 1,400 were reported. He stated they “should have removal by knife”.

MILITARY SURGERY IN 1866

In 1866, State Medical Meeting took place at Ohio White Sulphur Springs in June, at which a statement, true then and still too true, was made as to a case of gunshot wound that died of too much “conservative surgery”. A report on “Military Surgery” by Norman Gay of Columbus was most enlightening then and today if the modern trained man cares to read the instructions of some 76 years ago. Not knowing the real reason why, he advised the dressing to be wet with warm whiskey and water. He was radically opposed to the habit of a few years before of applying cold water to keep down inflammation. This was a real step forward in the early surgery of Ohio.

In 1867, the state meeting's most interesting surgical report was on a case of “Foreign Body in the Female Bladder” which was removed under chloroform anaesthetic by Dr. W. C. Hall of Fayetteville, by using a “blunt hook in the urethra”.

The O.S.M.S. of 1868 gives a very interesting paper on “Report on Amputations”, by R. W. Sweeney, M.D., of Marion. The third great era of amputations began in 1847 following the use of anesthetics in 1844. The flap operation was thought to be superior to the circular as it was less complicated and less apt to retain discharges

and better to cover the bone end. During this time there were many arguments between the doctors as to the evils of acupressure and artery ligation. Dr. Sweeney proposed the use of a needle constructed after the plan of the ordinary tenaculum needle.

Alexander Dunlap of Springfield, at the 1868 meeting, in a paper on Ovariectomy said, “The idea that such vital organs as the abdominal viscera could be exposed and handled with such roughness as was necessary in operations for ovarian tumors, without resulting in fatal peritonitis was one to which the profession was slow to yield; they demanded that the means of diagnosis be made plain, before we invade the citadel of life and lay open to our gaze those organs which nature has so carefully enclosed in most delicate membranes, to perform her secret missions.” From 1843 to 1868 but 30 such operations had been performed in the new Cincinnati Hospital, of which nine died.

A. Metz of Massillon, Ohio, made the following report of a committee on Anal Surgery: “How important it is therefore to keep open and in good condition these complicated channels to and from the citadel of thought. For these conditions leeching or local depletion was very popular as well as causing many pathological difficulties”.

INTRACRANIAL TUMORS

At the 1869 meeting of the O.S.M.S., Dr. Robert Bartholow of the Medical College of Ohio read a most interesting paper on “Intra Cranial Tumors”—although this was long before the days of brain surgery. At this same meeting Dr. A. B. Jones of Portsmouth, wrote on “Carcinoma Uteri” which was the organ first in frequency of cancer development. It had been burned out, scooped out, bored out; it had been twisted, pulled and dragged out, as well as cut and sawed out. Dr. Bartholow was one of the very early doctors to remove the entire organ by abdominal section and “notwithstanding that the operation was successful the patient died”. The new Cincinnati Hospital was finished in January, 1869. At that time it was said to be one of the greatest architectural attractions in this part of the United States. The first operation performed in it was for a hip joint amputation by Dr. Thomas Wood. Dr. N. P. Dandridge did the first successful operation for ovarian tumor in the Cincinnati Hospital using the “new antiseptic methods”.

P. S. Conner's paper at the 1870 meeting dealt with the “Surgical Application of Carbolic Acid” saying there was not a single surgical disease or injury in the treatment of which carbolic acid has not been used as a deodorant, local irritant, a caustic, a destroyer of parasites, animal or vegetable, as a preventive of inflammation and

suppuration, and as a true antiseptic. As a sick room disinfectant its action was certain and powerful. In November, 1870, W. H. Mussey successfully removed the right and left superior maxillary bones under ether, the hemorrhage being controlled with ice and ice water used locally for two hours. The report of this case appears in the 1871 transactions of the O.S.M.S. as does also the article on "Mechanical Treatment of Stricture of the Urethra" by D. S. Young of Cincinnati.

The 1871 state meeting was held in Cincinnati in March, with Dr. T. A. Reamy acting as president. He said "once more you lay aside the armour of your daily conflict with disease, lay aside the anxious cares of your life battle, lay aside your duties with their constant mental and physical tension and in this interchange of professional thought we shall go home with greater capacity for usefulness in our work; and in this interchange of professional friendship and courtesies, go home with kindlier regard of our medical fellows". How true a statement, this is today, of the importance of these meetings of Ohio doctors. Dr. Mussey's paper was the report of the committee on "Improvements in Surgery" and he exhibited casts and photographs of many kinds of tumors.

For the narrow or constricted cervical canal, dilatation was in its early years and many papers discussed its dangers and advantages of which pain was one of the greatest, as anesthesia, either general or local, was a comparatively new procedure. Dilating forceps were brought to the attention of the state doctors on many occasions and C. D. Palmer of Cincinnati, developed the Palmer forceps which continued in use for many years. We can not pass on from 1871, without speaking of some of the contributions to surgery of Dr. George C. Blackman who died in 1871. It is said that as an operator he was "bold as well as brilliant and second to none in the land". He edited Motts Velpeaus, "Operative Surgery", and with the assistance of Dr. Trippler of the army brought out a handbook on "Military Surgery".

At the 1872 state meeting in Portsmouth, Dr. W. W. Dawson presided as the president. P. S. Conner wrote on "Hernia Cerebri"—saying, "maintaining cleanliness and slight pressure on the tumor and so far as practicable excluding the air, are the measures of treatment that seem to me should be adopted. I have myself tried nitrate of silver and acetic acid; have made firm compression by adhesive straps and lead plates; have used the knife, scissors and ligature, but shall hereafter hesitate a long while before I repeat such treatment".

T. H. Kearney, the professor of Principles of Surgery at the Miami Medical College, presented a valuable paper on "Consultation" and

most of his statements are very true today, 70 years later.

The year 1873, seems to have added little of interest to surgical knowledge but in 1874 C. S. Muscroft reported on an "Osteo Sarcoma of Super Maxilla" 15 years after the removal of a large recurrent fibroid tumor of the face, neck and mouth, in July, 1859.

Toledo's surgeon, S. F. Forbes, told of a "New Amputation Through the Foot", as much easier of execution than either Hay's or Chopart's operations. The author said the resulting stump is better and the future usefulness of the limb more certain. The operation through the tarsus even though the heel is left is preferable to an amputation in the leg, as the shock is less, healing more speedy, and the after expenses of a false leg are avoided.

INTERESTING SURGICAL PAPERS, 1875 STATE MEETING

The most interesting surgical article of the 1875 state meeting concerned, "Fracture of the Base of the Skull", exploratory incision by C. F. Muscroft. It shows the urge of the surgeons to attack the unknown in their keen desire to be of aid to the injured layman. This, of course, is one of the reasons surgeons of all times have been so severely condemned in their effort to accomplish the healing of some disease that had not been curable before. A true surgeon has the spirit of the discoverer of the unknown to a degree no other group of the army of physicians has ever had in the past many centuries.

A special committee on Gynecology, through T. A. Reamy, made the 1876 report on the growing opinion "that cancer is developed from epithelia cells" in an article entitled, "Removal of the Neck of the Uterus for Cancer" with seven case reports. These operations were made by use of heavy cutting gauge forceps. Dr. Reamy urged the surgeon to work with vigor and a confidence that inspires hope in the doomed sufferer for no disease is more depressing than is cancer upon its victim.

At this same meeting C. S. Muscroft called attention to the three ways "Foreign Bodies in the Rectum" may become so located. First, by swallowing them; second, by being formed in the intestinal tract and, third, by introduction through the rectum. Their removal may require an operative procedure.

The 1878 state meeting of doctors at Columbus, provided the chance to hear an interesting paper on "Maxillary Tumors" by J. W. Hamilton. Dr. R. L. Sweeney of Marion, Ohio, reported an interesting case of "Inversion of the Uterus" which reverted seven months after its inversion.

In 1879, S. F. Forbes of Toledo, read a paper on "Progress of Surgery" in which he said, "Con-

servative surgery is progressive surgery. What our fathers removed, we restore. In anesthesia, whereby pain is prevented and shock lessened, in the Esmarch bandage, whereby waste from hemorrhage is avoided, and in the Lister dressings whereby surgical fever and contamination of the blood and body are no longer feared, we have, it would seem, arrived nearly to the acme of surgery". In this paper, Dr. Forbes spoke of a successful suprapubic lithotomy operation in the practice of Dr. G. A. Collamore of Toledo. In speaking of antiseptic surgery Dr. Forbes said, "For amputation, and many other operations in healthy localities in the country, Mr. Lister's dressing can be dispensed with and equally good results obtained".

TREATMENT OF EMPYEMA

In 1881, in June, N. P. Danridge of Cincinnati, Ohio, presented an enlightening paper on the "Treatment of Empyema". To quote, "In all cases of acute pleurisy—when the effusion is so great as to prove a source of danger by its quantity—aspiration is indicated. In ordinary cases of acute pleurisy the average time for operation will not be earlier than the 21st day of the disease. . . . If, however, the fluid is purulent from the first or becomes so after aspiration—repetition of the operation is not indicated—but rather the establishment at once of a permanent opening. This prevents stagnation and decomposition of the discharge. When the opening through the intercostal space proves insufficient, a section of a rib or more than one should be practiced. In cases where an absolute diagnosis can not be had, aspiration is indicated to establish the diagnosis".

At the 1882 meeting of the state physicians, G. W. Garrison said in his paper, "When I commenced treating cancer, I usually cut them out as it was quicker done and less painful to the patient; but a few cases sufficed to show me that it was not the best procedure, as a large proportion of them returned in the cicatrix or some internal organ. Of late, therefore, I employ escharotics most uniformly and my results during the last 10 years have been all that could be desired; . . . the ages of the patients ranging from 56 to 71 years".

P. S. Conner read an interesting article on "External Perineal Urethrotomy" recommending it highly in preference to the internal operation.

"Surgery of the Arteries" was the title of the paper by R. A. Vance of Cleveland. He advised according to local and general conditions the twisting or tying of both ends of the artery followed by rest and local pressure compression.

N. P. Danridge of Cincinnati, read a paper on "Surgical Disease of Genitourinary Organs" and he reported on 115 cases treated in various ways;

also a paper on "Foreign Bodies in the Urethra", calling attention to the finding of a bullet in the urethra 13 years after a bullet wound in the groin.

SURGICAL SUBJECTS DISCUSSED AT 1884 MEETING

In the 1884 Ohio State Medical Society meeting, "Congenital Phimosis" by W. J. Conklin, of Dayton, provided the chance for him to call attention to the evil effects of neglected congenital phimosis cases, in which he stated that over 50 per cent of young males he saw showed phimosis. The idea he conveyed is of interest as it showed the beginning of principles now of very common practice that in view of the possible contingencies it is certainly prudent to relieve phimosis wherever found. When symptoms of general irritation exist, or the deformity is aggravated . . . the indication for immediate operative interference is positive.

Joseph Ransohoff, M. D., F. R. C. S., read a paper on "Sanguineous Cyst of the Neck". He stated that these cysts of the neck are "largely enshrouded in mystery concerning which are many dissenting views". Under ether anesthesia he operated on one case which contained one pint of fluid of dark color like blood but which did not coagulate. These cysts are of rare occurrence and may appear as of congenital origin or show up late in life. Two cases treated by Dr. Ransohoff by incision gave very unsatisfactory results.

Dr. W. C. Denman of Marion, Ohio, reported at this meeting on a case of "Congenital Hydrocephalus" which was tapped several times unsuccessfully.

"Rupture of the Perineum" was the subject of the paper by H. Z. Gill, M. D., of Cleveland, professor of Clinical and Operative Surgery, Wooster Medical College. He stressed strongly the need of early operation for rupture of the perineum and spoke of the fact that horse hair for suture material was growing in favor and could be used of sufficient strength by doubling, though at that time he confined himself to silver wire, as "of prime importance in all operations in which it is desired to effect union by first intention with the arrest of hemorrhage and removal of all clots from between surfaces".

(Continued in April issue)

Members of the State Association who have any material dealing with the history of Medicine in Ohio, especially official proceedings of The Ohio State Medical Society prior to 1870, are requested to communicate with Jonathan Forman, chairman of the Committee on Medical History and Archives of the Ohio State Archaeological and Historical Society, 1005 Hartman Theater Building, Columbus, Ohio.

Hotel Reservations for Annual Meeting Should Be Made Immediately! Fill Out and Mail Blank Today!

HOTEL reservations for the Ninety-Seventh Annual Meeting of the Ohio State Medical Association, Tuesday and Wednesday, March 30-31, at the Neil House, Columbus, should be made immediately. You know what type of accommodations you will require. The best way to insure your obtaining those accommodations is to make a request for reservations at once to the hotel where you wish to stay.

Requests for hotel reservations should be addressed directly to the management of the hotel selected.

Look over the accompanying list of Columbus hotels, their location and room rates. Make your choice. Fill in the blank accordingly, and mail it NOW.

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
NEIL HOUSE (Headquarters Hotel) 35 South High St.	665	\$3.30-6.60	\$4.95-8.80	\$5.50-9.90	\$8.80 and up (single) \$13.20 and up (double)
DESHLER-WALLICK Broad and High Sts.	1000	3.30-7.70	5.50-11.00	5.50-11.00	8.80 to 19.80
FORT HAYES 31 W. Spring St.	350	3.00 and up	4.50 and up	5.00 and up	7.00 to 18.00
CHITTENDEN High and Spring Sts.	275	2.50-3.00	3.00-4.00	3.50-6.00	
SENECA 361 E. Broad St.	250	2.50-3.50	3.75-5.00	5.00-5.50	3.75 to 8.00 (single) 5.50 to 10.00 (double)
SOUTHERN High and Main Sts.	250	2.50-3.00	3.50-4.50	4.00-4.50	
VIRGINIA Third and Gay Sts.	150	2.20 and up	3.30 and up	4.40 and up	
BROAD-LINCOLN 631 E. Broad St.	140	2.00 and up plus 10%	3.00 and up plus 10%	4.50 and up plus 10%	3.50 and up plus 10%

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager..... Hotel, Columbus, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, March 30-31, 1943, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:.....
☐ Twin Bed Room with bath ☐ Suite

Arriving March..... atA. M. P.M.

PLEASE VERIFY MY RESERVATION.

Name

Address

.....

NINETY- SEVENTH ANNUAL MEETING

Ohio State Medical
Association



“MEDICINE ON THE HOME FRONT,”
A CONFERENCE FOR DISCUSSION OF
WARTIME MEDICAL and HEALTH QUESTIONS

Tuesday and
Wednesday

MARCH 30 *and* 31,
1943

NEIL HOUSE
COLUMBUS

See Following Pages for Detailed Program

★ OFFICIAL PROGRAM ★

TUESDAY, MARCH 30

4:00 P. M.

**FIRST SESSION, HOUSE OF DELEGATES
JUNIOR BALLROOM, MEZZANINE FLOOR**

Organization business session. All members cordially invited to attend as observers if they care to do so.

6:30 P. M.

**INVITATION DINNER
MAIN BALLROOM, MEZZANINE FLOOR**

Guests of the Association will be Presidents, Secretary-Treasurers, and Chairmen of War Participation Committees of County Medical Societies, Members of the House of Delegates and members of the War Participation Committee of the State Association. Admission will be by special card.

8:30 P. M.

**"MEDICINE AND THE WAR"
MAIN BALLROOM, MEZZANINE FLOOR**

Conference on wartime problems confronting the medical profession. All members urged to attend. Presentation by guest speakers. Question - and - Answer Period.

GUEST PARTICIPANTS



Robert Conard, M.D.

Robert Conard, M.D., Wilmington, O., Chairman, Ohio Procurement and Assignment Committee for Physicians; Chairman, War Participation Committee, Ohio State Medical Association.



Elmer L. Henderson, M.D.

Elmer L. Henderson, M.D., Louisville, Ky., Chairman, Fifth Service Command Procurement and Assignment Service for Physicians; member, Board of Trustees, American Medical Association.



Walter F. Donaldson, M.D.

Walter F. Donaldson, M.D., Pittsburgh, Chairman, War Participation Committee, American Medical Association; member, Judicial Council, American Medical Association.



Harold S. Diehl, M.D.

Harold S. Diehl, M.D., Minneapolis, member, Directing Board, Procurement and Assignment Service, War Manpower Commission; dean, University of Minnesota Medical School.

10:00 P. M.

**WOMAN'S AUXILIARY RECEPTION
HALL OF MIRRORS, DESHLER-WALLICK HOTEL**

All members of the Association have been cordially invited to be guests of the Woman's Auxiliary, Ohio State Medical Association, at an informal reception at the Deshler-Wallick Hotel immediately following the "Medicine and the War" program. All members and their families are urged to attend this social function.

WEDNESDAY, MARCH 31

8:30 A. M.

SECOND SESSION, HOUSE OF DELEGATES

JUNIOR BALLROOM, MEZZANINE FLOOR

Election of officers; action on resolutions; transaction of miscellaneous business; reports of reference committees. All members cordially invited to attend as observers if they care to do so.

10:00 A. M.

GENERAL SESSION: "KEEPING THEM WORKING"

MAIN BALLROOM, MEZZANINE FLOOR

A general session for all members, featuring a symposium of subjects pertaining to industrial health with guest speakers as participants. Special emphasis will be placed on industrial health and medical activities among those employed in war industries, looking toward the reduction of absenteeism and the improvement of the health of workers engaged in the production of war materials.

10:00 - 10:30 A.M. "PRESENT DAY INFLUENCES IN INDUSTRIAL HEALTH"

CHRISTOPHER LEGGO, M.D., Columbus, Ohio

Surgeon (R), United States Public Health Service; Director,
Industrial Hygiene Service, Ohio State
Department of Health

Former plant physician, California and Hawaiian Sugar Refining Corporation; former consultant on occupational hygiene, California State Health Department; fellow, American Association of Industrial Physicians and Surgeons; associate editor of "Industrial Medicine."



Christopher Leggo, M.D.

10:30 - 11:00 A.M. "ESSENTIALS AND ORGANIZATION OF INDUSTRIAL HEALTH SERVICES"

CARL M. PETERSON, M.D., Chicago

Secretary, Council on Industrial Health, American
Medical Association



Carl M. Peterson, M.D.

Dr. Peterson has been secretary of the Council on Industrial Health of the American Medical Association since its creation by the A.M.A. House of Delegates five years ago. In that capacity he has been the administrative director of the work of that agency and has had an opportunity to become acquainted with industrial health programs in all parts of the country. In his address he will offer suggestions as to what the county medical societies in Ohio can do in this important field, under the guidance of the newly-formed Committee on Industrial Health of the Ohio State Medical Association of which Dr. Barney J. Hein, Toledo, is chairman.

11:00 - 11:30 A.M. "WOMEN IN INDUSTRY—PRESENT AND FUTURE PROBLEMS"

H. CLOSE HESSELTINE, M.D., Chicago

Chairman, Committee on the Health of Women in Industry,
Section on Obstetrics and Gynecology, American
Medical Association

Associate professor of obstetrics and gynecology, University of Chicago; attending obstetrician and gynecologist, Chicago Lying-in Hospital; attending gynecologist, Albert Merritt Billings Hospital; obstetrical and gynecological consultant, Provident Hospital.



H. Close Hesselstine, M.D.

11:30 A.M. - 12:00 Noon "PREVENTIVE MEDICINE IN INDUSTRY"



John H. Foulger, M.D.

JOHN H. FOULGER, M.D., Wilmington, Del.

Director, Haskell Laboratory of Industrial Toxicology

Associate professor of Industrial Health, Medical College of Virginia; former associate professor of pharmacology, University of Cincinnati; fellow, American Association of Industrial Physicians and Surgeons; member, National Research Council Committee on Nutrition in Industry; member, American Standards Association Committee on Toxic Vapors, Dusts and Gases.

12:00 Noon - 12:30 P.M. DISCUSSION AND QUESTION-ANSWER PERIOD

2:00 P.M.

GENERAL SESSION: "KEEPING THEM HEALTHY"

MAIN BALLROOM—MEZZANINE FLOOR

A general session for all members, featuring addresses by guest speakers on subjects pertaining to some of the wartime health and medical problems of the civilian population; what needs to be done to keep civilians healthy during the emergency; the physician's part in efforts to meet these problems; readjustments which the medical profession must make to discharge its responsibilities now and how it must prepare for the post-war period.

2:00 - 2:45 P.M. "IMPORTANCE OF OPTIMUM NUTRITION FOR THE CIVILIAN POPULATION IN WARTIME"

TOM D. SPIES, M.D., Cincinnati and Birmingham, Ala.

Director, Nutrition Clinic, Hillman Hospital, Birmingham, Ala.;
Associate Professor of Medicine, University of
Cincinnati College of Medicine

Member, Council on Foods and Nutrition, American Medical Association; member, Council for the Central Society for Clinical Research; consultant to Secretary of War on matters pertaining to tropical medicine; member, Food and Nutrition Board, National Research Council.



Tom D. Spies, M.D.

2:45 - 3:00 P.M. DISCUSSION AND QUESTION-ANSWER PERIOD.

3:00 - 3:45 P.M. "IMPORTANCE OF IMMUNIZATION OF THE CIVILIAN POPULATION IN WARTIME"



John A. Toomey, M.D.

JOHN A. TOOMEY, M.D., Cleveland, O.

Professor, Clinical Pediatrics and Contagious Diseases,
Western Reserve University School of Medicine

Physician-in-charge, Contagious Disease Hospital, Cleveland; associate pediatricist (contagious diseases), University Hospitals, Cleveland; fellow, American Academy of Pediatrics and of the American College of Physicians; licentiate, American Board of Pediatrics; member, Society for Experimental Biology and Medicine and of the American Society of Bacteriology.

3:45 - 4:00 P.M. DISCUSSION AND QUESTION-ANSWER PERIOD

4:00 - 4:30 P.M. "ADJUSTMENT OF THE PHYSICIAN TO CIVILIAN NEEDS IN WARTIME"

EDWARD J. McCORMICK, M.D., Toledo, O.

President, Ohio State Medical Association

Dr. McCormick's address will consist of a review of some of the vital wartime social and economic problems confronting the medical profession; how the profession is endeavoring to meet these problems; readjustments which must be made to provide adequate medical services under wartime conditions; anticipated future problems and steps which will be necessary to cope with them in the post-war period.



Edw. J. McCormick, M.D.

4:30 P.M. ADJOURNMENT

Woman's Auxiliary, Ohio State Medical Association

All Sessions at Deshler-Wallick Hotel

TUESDAY, MARCH 30

10:30 A.M.

REGISTRATION

12:30 P.M.

LUNCHEON FOR BOARD MEMBERS and MEETING OF BOARD

3:30 P.M.

GENERAL SESSION OF AUXILIARY

7:00 P.M.

"LITTLE DINNERS" FOLLOWED BY ROUND TABLE DISCUSSIONS

10:00 P.M.

RECEPTION BY AUXILIARY FOR MEMBERS OF THE OHIO STATE MEDICAL ASSOCIATION AND THEIR WIVES

(Continued on page 260)

WEDNESDAY, MARCH 31

9:00 A.M.

SECOND SESSION OF AUXILIARY

1:00 P.M.

LUNCHEON HONORING MRS. J. L. STEVENS, MANSFIELD, the PRESIDENT-ELECT

ADDRESS: Dr. C. C. Sherburne, M.D., Columbus, President-Elect,
Ohio State Medical Association

3:30 P.M.

POST-CONVENTION BOARD MEETING

Proposed Amendments To Be Voted on By Woman's Auxiliary at 1943 Annual Meeting

The following proposed amendments to the Constitution and By-Laws of the Woman's Auxiliary to the Ohio State Medical Association have been approved by the Board of Directors of that organization and by The Council of the Ohio State Medical Association, and will be submitted to the House of Delegates of the Auxiliary when it meets in Columbus on March 30 and 31, at the time of the 1943 Annual Meeting of the Ohio State Medical Association:

In Article 6 of the Constitution strike out the words "a Secretary-Treasurer" and insert the words "a Secretary, a Treasurer,".

The effect of this proposal is to eliminate the office of "Secretary-Treasurer" and to create the office of "Secretary" and the office of "Treasurer".

* * *

Amend Section 6, Chapter 6 of the By-Laws to read as follows:

"Sec. 6. Secretary. The Secretary shall keep a record of all meetings of this Auxiliary and of the Board of Directors. She shall keep a roster of members of this Auxiliary; shall be custodian of Official records and reports; carry on the official correspondence of the Auxiliary; and conduct such other duties as may be required or ordered by the Board."

This section, as amended, would relate solely to the duties and activities of the Secretary and would eliminate wording which referred to duties of Treasurer, previously carried on by the Secretary-Treasurer.

* * *

Insert a new Section, reading as follows:

"Sec. 7. Treasurer. The Treasurer shall be the custodian of the funds of this Auxiliary, including per capita dues collected by and transmitted

to her by the component auxiliaries or received from members-at-large direct. She shall disburse funds only upon written order signed by the President and chairman of the Finance Committee and shall submit a financial report at each meeting of the Board of Directors and at the annual meeting of this Auxiliary. She shall give bond in such amount as shall be required by the Board, the expense to be borne by this Auxiliary, and her books shall be audited annually by a certified public accountant."

This new section would set forth the duties and activities of the Treasurer, a new office created by the amendment to Article 6 of the Constitution.

* * *

Amend existing Sections 7 and 8 of the By-Laws so that they will become "Section 8" and "Section 9", respectively.

Memorial Services Are Held in Cleveland for Dr. Crile

High tribute for the pioneer work of the late Dr. George W. Crile was sounded by various leaders of the medical profession in special memorial services held in his honor on Jan. 24 in Amasa Stone chapel of Western Reserve University, Cleveland. Principal address was made by Brig. Gen. Fred W. Rankin, president of the American Medical Association and representative of the Army Surgeon General's office.

The memorial services were attended by hundreds of physicians from throughout the United States as well as from Dr. Crile's own city of Cleveland. Many of the men present had studied under him. Other speakers on the program were Dr. Irvin Abell, president of the American College of Surgeons; Dr. William E. Wickenden, president of the Case School of Applied Science and a director of the Cleveland Clinic Foundation, of which Dr. Crile was a co-founder; and Dr. Winfred G. Leutner, president of Western Reserve University.

Annual Reports of The Council and Various Committees On Activities of State Association During the Past Year

THE Constitution and By-Laws of the Ohio State Medical Association provides that the various committees shall submit annual reports on their activities to the House of Delegates and that such reports shall be published in *The Journal* in advance of the Annual Meeting of the Association.

This year conditions make it virtually impossible for the committees to comply with this provision. The Council is fully aware of this situation and feels that under existing circumstances the membership will approve of this abbreviated method of reviewing in a general way some of the more important work which has been going on since the last Annual Meeting.

First, it was found necessary during the past year to gear many of the activities of the State Association to the winning of the war.

Second, in order to meet additional responsibilities and to carry out new activities arising from the war, it was found advisable to curtail some of the customary programs and work of the Association and to hold in abeyance for the duration some of the projected activities and plans designed to improve the Association's usefulness and services to the membership generally.

Third, every effort has been made to carry on regular services and programs in addition to the new war activities which have been mentioned but, of course, it was found necessary to concentrate on those deemed absolutely essential to proper functioning of the Association.

Fourth, meetings and activities of certain committees had to be dispensed with. Fewer committee and Council meetings have been held, because of transportation difficulties and due to the fact that all physicians are carrying an extremely heavy load in meeting medical and health needs of their respective communities.

The work of all committees which have been called into session and which are heading up the various activities of the Association has been carefully reviewed by The Council. Therefore, instead of requesting the committee chairmen to prepare a review of the year's work of their committees, The Council presents as follows some of the high spots of the fine job which all such committees have done during the past 12 months, at the sacrifice of much time and effort on the part of all committee members.

The Council

COMMITTEE ON WAR PARTICIPATION

Shortly after the 1942 Annual Meeting, the Committee on War Participation undertook one of the most difficult, as well as most essential, tasks which has ever been assigned to a committee of the State Association. When the Procurement and Assignment Service for Physicians was created by executive order of President Roosevelt to assist the Army, Navy and other Federal services in obtaining medical officers and other medical personnel by passing on the availability of physicians on the basis of civilian needs, Dr. Robert Conard, Wilmington, chairman of the Committee on War Participation, was appointed by Director McNutt of the War Manpower Commission as Procurement and As-

signment chairman for physicians in Ohio. Dr. Conard requested the Committee on War Participation to assist him. The committee consented to do so and became known as the Ohio Procurement and Assignment Committee for Physicians.

Initially, the committee found itself confronted with the gigantic job of evaluating the status of all Ohio physicians of military age, i.e., under 45 years of age. This required the assembling of information on approximately 4,500 physicians. Next, conditions in all counties had to be surveyed to ascertain how many physicians could be spared for the armed forces and how many would have to be retained at home for civilian needs. The situation with respect to medical personnel in Ohio's three medical schools, the hospitals and in many industries had to be studied.

After the committee had completed these surveys, all of which required considerable field work, much correspondence and many interviews with physicians and officials of medical schools, hospitals and industrial plants, it cooperated with the Army and Navy in the active recruiting programs which were launched by those services during the Summer and Fall of 1942. The Headquarters Office at Columbus was requested by the committee to assist on clerical matters. The processing of clearance forms and the large num-

ber of investigations which had to be made over a period of six months placed a heavy burden on the shoulders of the members of the committee and the clerical staff at Columbus. The State Association also made a substantial financial contribution to this work in the form of postage, stationery, telephone and telegraph costs, traveling expenses, etc., but was glad to do so as a tangible expression of its willingness to cooperate in every possible way with the government in the war program.

The excellent job which the committee did is evidenced by the results achieved. By the end of 1942, Ohio had contributed approximately 2,400 medical officers. The response of Ohio physicians to the need for medical officers in the armed forces was gratifying to say the least. Ohio was the first of the larger states to meet its 1942 quota—in fact it exceeded its quota.

On the other hand while meeting every demand of the government for medical officers, the Ohio committee also never lost sight of the fact that an adequate supply of physicians would have to be retained at home to meet civilian needs. Classifications were made thoroughly and after investigation at local sources. As a result, there is no over-all shortage of physicians in Ohio for civilian needs at this time. The committee readily admits that it made some mistakes. This was to be expected in any assignment of such proportions. At present there are a few areas in the state where physicians for civilian practice are needed. The committee is endeavoring to place physicians in those communities through voluntary procedures.

At present the committee is engaged in a reappraisal of physicians throughout the state to ascertain how many additional Ohio physicians can be placed on the military available list for 1943. Being fully aware of the importance of maintaining adequate medical personnel for civilian needs and that many areas cannot spare additional physicians for the armed forces, the committee is making its reappraisal with extreme caution. At the same time, it feels that Ohio will be able to meet the new demands of the Army and Navy for medical officers without seriously affecting the situation at home by looking to metropolitan centers primarily for potential medical officers this year.

It is quite obvious that the state committee would have been seriously handicapped had it not received the support and assistance of war participation committees of the local medical societies. Acknowledgement and appreciation is expressed to the local committeemen on behalf of the state committee. Moreover, the State Association owes the local committeemen a vote of appreciation for the fine cooperation it has received on matters pertaining to providing medi-

cal examiners for Selective Service Boards and other war activities.

For detailed information on the activities of the Committee on War Participation members are referred to the comprehensive Procurement and Assignment articles which have appeared in *The Journal* each month and which, by citation, should be regarded as a part of this report.

The members of the Committee on War Participation (Procurement and Assignment) in addition to Dr. Conard, the chairman, are: Dr. Charles E. Hauser, Cincinnati; Dr. Merrill D. Prugh, Dayton; Dr. Frank M. Wiseley, Findlay; Dr. Dale Wilson, Toledo; Dr. James N. Wychgel, Cleveland; Dr. Charles A. LaMont, Canton; Dr. Carl A. Lincke, Carrollton; Dr. Blaine R. Goldsberry, Athens; Dr. Harry F. Rapp, Portsmouth; Dr. John H. Mitchell, Columbus; and Dr. Charles R. Keller, Mansfield.

COMMITTEE ON PUBLIC RELATIONS AND ECONOMICS

A number of important questions involving fundamental policies and procedures have been considered by this committee during the past year and reported to The Council for official action. However, since the Fall of 1942 it has been concerned primarily about questions of legislation.

Assisted by members of the Sub-Committee on Legislation and by local legislative committeemen, the committee was able to present to the membership last November pertinent information about candidates for the General Assembly, the U. S. Congress and other public offices. This involved interviews by local committeemen and members of the state legislative committee with hundreds of candidates. It is felt that this project was extremely worthwhile as a public relations undertaking and because it gave valuable data to physician-voters.

Since the Ohio General Assembly convened in January of this year the committee has held one protracted meeting for the purpose of reviewing and formulating statements of policy with respect to numerous bills affecting the practice of medicine, medical licensure, medical education and public health which are pending in the State Legislature. These statements of policy have been transmitted to local committeemen to guide them in their contacts with members of the General Assembly.

Under the supervision of the committee the Bureau of Public Education has carried on its customary educational and public relations campaign, providing articles for the daily press, speakers for lay meetings, information for laymen interested in public health and medical matters, radio programs, exhibits and material for members who have been invited to address lay

gatherings. This bureau continues to play an important role, especially at this time when its efforts have been directed primarily toward winning the cooperation of the public in efforts of the medical profession to provide adequate medical services under difficult wartime conditions.

The committee has maintained proper relationships for the Association with official and non-official agencies and groups interested in health and medical questions; welfare organizations, farm groups, etc. It has endeavored to provide guidance and leadership to activities affecting the medical profession so the medical profession will be in a strong position during the troublesome post-war period. It urges all county medical societies to give more thought to this particular question, believing that the profession must prepare now for difficult re-adjustments which are ahead.

The members of the Committee on Public Relations and Economics and the Sub-Committee on Legislation, respectively, are: **Committee on Public Relations and Economics**—Dr. Barney J. Hein, Toledo, chairman; Dr. Ralph M. Watkins, Cleveland; Dr. H. M. Platter, Columbus; Dr. O. J. Walker, Youngstown; Dr. E. O. Swartz, Cincinnati; Dr. Edward J. McCormick, Toledo, the President; Dr. C. C. Sherburne, Columbus, the President-Elect; and Dr. Harry V. Paryzek, Cleveland, the Past-President. **Sub-Committee on Legislation**—Dr. Ralph M. Watkins, Cleveland, chairman; Dr. O. J. Walker, Youngstown, vice-chairman; Dr. Emil R. Swepston, Cincinnati; Dr. J. C. Larkin, Hillsboro; Dr. Clyde M. Fitch, Portsmouth; Dr. J. L. Webb, Nelsonville; Dr. I. B. Harris, Columbus; Dr. G. A. Woodhouse, Pleasant Hill; Dr. John V. Hartman, Findlay; Dr. Jay W. Calhoon, Uhrichsville; Dr. J. W. Schoolnic, East Liverpool; Dr. John M. VanDyke, Canton; Dr. James G. Blower, Akron; Dr. E. L. Clem, Ashland; Dr. Geo. F. Linn, Norwalk; Dr. D. J. Slosser, Defiance; and Dr. A. A. Brindley, Toledo.

COMMITTEE ON INDUSTRIAL HEALTH

The newest committee of the State Association but one which is playing, and will continue to play, an important part in the activities of the State Association, is the Committee on Industrial Health, consisting of the following: Dr. Barney J. Hein, Toledo, chairman; Dr. J. Craig Bowman, Upper Sandusky; Dr. D. W. Heusinkveld, Cincinnati; Dr. H. M. Platter, Columbus; Dr. George F. Sykes, Cleveland; Dr. E. O. Swartz, Cincinnati; Dr. Ralph M. Watkins, Cleveland; Dr. O. J. Walker, Youngstown; Dr. Carl A. Wilzbach, Cincinnati; Dr. Edward J. McCormick, Toledo, the President; Dr. C. C. Sherburne, Columbus, the President-Elect; and Dr. Harry V. Paryzek, Cleveland, the Past-President.

This committee was appointed last Fall by

President McCormick to work with the Council on Industrial Health of the American Medical Association and to organize an active industrial health program for the State of Ohio. The growing need for greater interest on the part of medical organization in this field has been accentuated by the war, the ultimate outcome of which will depend largely on the production of materials and effective utilization of manpower. With this in mind the committee has established the following objectives:

1. To sponsor health education programs for workmen and their families.
2. To assist in reducing absenteeism in war industries through health conservation programs, health education programs and improvement of health and medical services within plants.
3. To bring about good correlation between workers and family physicians and community health agencies so nonoccupational sickness and injury can be minimized.
4. To cooperate with management and labor on health educational activities among workers, preventive procedures and the establishment of more healthful working conditions.
5. To provide opportunities for physicians to obtain refresher and postgraduate courses on industrial hygiene and industrial medicine.

Every county medical society has been requested to form a committee on industrial health to head up local industrial health programs under the guidance of the state committee. At present the committee is concentrating on the job of having a proper organization set up in counties where there are war industries. The second step will be to acquaint the local committees with the objectives of the program and recommend activities to be carried on locally. A handbook of recommendations and activities was being prepared as this report was written and will be distributed to local committees at the appropriate time.

The entire program is in the formulative stage but tangible action may be anticipated in the near future. It is believed that this program will be a definite and valuable contribution from Ohio medicine toward the winning of the war. However, it is being designed as a long-range project as there is no doubt but that industrial health will become an even greater segment of the whole field of medical practice in the post-war period. The pattern is being established now. That is why the medical profession must take a position of leadership in this field.

In appointing the Committee on Industrial Health, Dr. McCormick abolished the Sub-Committee on Workmen's Compensation, assigning to the new committee the duties and responsibilities of the former sub-committee and designating the

new committee as the liaison between the State Association and the State Industrial Commission.

COMMITTEE ON AUDITING AND APPROPRIATIONS AND THE TREASURER

Elsewhere in this issue will be found the annual audit of the books of the State Association and *The Journal*, constituting the annual report of the Committee on Auditing and Appropriations and the Treasurer. The Association is in sound financial condition. Despite a decrease in revenue through waiver of annual dues for those in the various services and unanticipated expenditures for war activities, the Association lived well within its budget during 1942. Additional losses in revenue may be anticipated during 1943 as the dues of many more members will be waived but The Council has taken this into consideration in setting up the budget for this year. Many items have been trimmed to the bone but adequate funds have been set aside for all necessary activities.

MEMBERSHIP AND THE JOURNAL

By the close of 1942 the membership of the State Association had reached an all-time high—6,726—compared to a total of 6,604 at the end of 1941. At present, approximately 1,700 had been certified to the Headquarters Office as in military service or in full-time service with some Federal agency. Handling of the certifications for military membership, issuing of rebates to those in the service, and the keeping of up-to-date records on military members placed an additional heavy burden on the Membership Department of the Headquarters Office. Efforts have been made to maintain a card file on all physicians in the services, with rank and assignment, and it is believed that we have probably the most accurate listing of Ohio medical officers which exists.

During the past year *The Journal* has tried to gear its columns to the war effort. Efforts have been made to maintain the high standard of the scientific section of *The Journal* and to present news of interest, not only to those on the home front but to those in services as well. The "War Notes" department has become very popular with all readers of *The Journal*, especially those in the services. *The Journal* hopes that all readers will send in news and especially solicits information from medical officers about themselves and their colleagues. Despite serious difficulties, the Circulation Department of *The Journal* is trying to get copies into the hands of all readers on time each month, including those in the services. Due to the changes in addresses of those in the armed forces this department has been confronted with many problems but in general it has delivered the goods—and on time.

The Headquarters Office staff has done its best

to maintain the routine personal services to which members are entitled. There has been a large increase in correspondence and of requests for information and assistance. Procurement and Assignment clerical work has demanded much time from members of the staff and during recent months this work has been increased by legislative activities and the industrial health program.

War Fund Drive of Red Cross to Be Launched in March

The annual War Fund drive of the American Red Cross, to raise \$125,000,000 with which to finance its vast war services, will be conducted throughout the United States during the month of March. In a "report to the people," showing how it used its funds during the year after Pearl Harbor, the Red Cross listed the following statistics:

Fifteen overseas clubs for Army and Navy men established; 637,000 service men given personal aid; 1,300,000 pints of blood for plasma collected and the 1943 goal raised to 4,000,000 pints; 33,705 nurses enrolled for Army and Navy; 31,000 nurses taught home nursing; 30,000 nurses' aides volunteered for duty; 72,434 civilian disaster victims aided; 2,500 survivors from torpedoed ships helped; 3,300,000 persons trained in first aid; 71,000,000 surgical dressings produced; 6,500,000 relief garments made; and 20,000,000 overseas victims helped. These totals, it is pointed out, have already been substantially increased by activities so far in 1943.

Army Sets Up New Laboratory

The U. S. Army has established an industrial hygiene laboratory at the Johns Hopkins University School of Hygiene and Public Health, Baltimore. The laboratory will be operated under the direction of the occupational hygiene branch of the preventive medicine division of the Office of the Surgeon-General of the Army. According to a recent announcement, its function will be to conduct surveys and investigations concerning occupational health hazards in Army owned and operated industrial plants, arsenals and depots, making reports on examinations of such gases, fumes, dusts, toxic substances or chemicals as may be collected in the Army plants.

Company Wins Army-Navy "E"

In recognition of its achievement in producing large quantities of medical supplies and first aid materials for the armed forces, Burroughs Wellcome and Co. was awarded the Army-Navy "E" at ceremonies recently at the firm's plant in Tuckahoe, N. Y. In acceptance of the award the company pledged full facilities of its laboratories and allied scientific institutions, as well as the services of its staff, to winning the war.

ANNUAL AUDIT OF BOOKS OF THE OHIO STATE MEDICAL ASSOCIATION AND THE
OHIO STATE MEDICAL JOURNAL FOR YEAR ENDED DECEMBER 31, 1942, BY
KELLER, KIRSCHNER, MARTIN AND CLINGER, CERTIFIED PUBLIC
ACCOUNTANTS, COLUMBUS, OHIO

OHIO STATE MEDICAL ASSOCIATION

EXHIBIT A—Statement of Cash Receipts and Disbursements—Treasurer for the year ended December 31, 1942.

CASH AND BONDS ON HAND JANUARY 1, 1942

Cash	\$ 4,739.30
United States Treasury Bonds	70,000.00
Total cash and bonds on hand January 1, 1942	\$ 74,739.30

RECEIPTS

Transfer from Executive Secretary's account:	
Membership dues, 1942:	\$44,196.00
Membership dues prior years:	12.00
Total dues transferred	\$44,208.00
Exhibit rentals	4,796.50
Total transfers from Executive Secretary's account	\$49,004.50

Other receipts:

Premium on bonds redeemed	1,065.63
Interest on U.S. Treasury bonds ..	1,942.35
Annual meeting receipts	440.00
Return of dues refund	14.00

Total receipts

Total to be accounted for

DISBURSEMENTS

Ohio State Medical Journal	\$ 8,500.00
Executive Secretary's salary	6,300.00
Executive Secretary's expense	774.00
Asst. Executive Secretary's salary ..	4,800.00
Asst. Executive Secretary's expense ..	484.52
President's expense	179.33
Treasurer's salary	300.00
Council's expense	376.23
Annual meeting expense	3,899.77
Bureau of Public Relations:	
Director's salary	\$ 3,600.00
Director's expense	352.15
Committee expense	820.98
Operating expense	13.30

4,786.43

American Medical Asso. delegates ..	353.69
Postage, telephone and telegraph	1,810.52
Rent	2,040.00
Stenographers' salaries	2,940.00
Stationery, printing and supplies	549.83
Miscellaneous committee expense	980.37
Auditing	100.00
Dues and subscriptions	57.36
Employee bonds	30.00
Liability insurance	53.99
Industrial insurance	124.61
Miscellaneous expense	68.72
Refunds for exhibit space cancelled ..	114.50
Reund of dues—military service	6,880.00

Total disbursements

CASH ON DEPOSIT AND BONDS ON HAND AT DECEMBER 31, 1942

The Huntington National Bank—Treasurer's account	\$ 701.91
U.S. Treasury and Defense bonds:	
Series G Defense bonds—2½%	\$40,000.00
Issue of 43-47 Treas. bonds—3¾% ..	9,000.00
Issue of 48-50 Treas. bonds—2%	25,000.00
Issue of 55-60 Treas. bonds .27½% ..	5,000.00
Issue of 59-60 Treas. bonds—2¾% ..	1,000.00
	80,000.00

Total cash and bonds on hand
December 31, 1942

Total Accounted for

THE JOURNAL

FINANCIAL CONDITION

The financial condition of The Ohio State Medical Journal at December 31, 1942 (shown in detail in Exhibit A), was as follows:

Current assets	\$ 3,243.20
Current liabilities	132.00
Net current assets	\$ 3,111.20
Property assets	2,495.94
Total net assets	\$ 5,607.14

The above is represented by:

Surplus

EXHIBIT A—Balance Sheet at December 31, 1942

ASSETS

Current Assets

Cash—The Ohio National Bank	\$ 2,489.98
Cash—petty	10.00

Total cash

Accounts receivable

Total current assets

Property Assets

Furniture and fixtures (depreciated value)	2,495.94
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Total Assets

LIABILITIES AND SURPLUS

Current Liabilities

Subscriptions prepaid

Surplus

Surplus at December 31, 1941

Less: Net loss for the year ended

December 31, 1942

Surplus at December 31, 1942

Total Liabilities and Surplus

EXHIBIT B—Statement of Profit and Loss for the year ended December 31, 1942

Revenue

Advertising

Less: Commissions on advertising \$ 775.35

Cash discounts

Total deductions

Advertising revenue—net

Circulation

Total revenue

Expenses

Journal printing

Membership subscription

Office salaries

Journal postage

Journal illustrations and engravings ..

Journal envelopes

Depreciation

Clipping service

Dues and subscriptions

Office supplies and expense

Bank charges

Total expense

Net Loss transferred to surplus

The Council Votes to Oppose House Bill 244, Proposing To Nullify Enabling Act for Medical Service Plans; Asks Membership to Actively Fight Passage of Measure

AT A SPECIAL meeting of The Council of The Ohio State Medical Association in Columbus on Sunday, February 21, with all but one member of The Council in attendance, The Council by a unanimous vote voiced its opposition to the enactment of House Bill 244, now pending in the Ohio General Assembly, and urged all County Medical Societies and all members of the Association to use their entire influence toward defeat of the bill.

House Bill 244, which has been referred to the House Insurance Committee for hearings, proposes to amend the Enabling Act for Medical Service Plans which was enacted two years ago and which was sponsored by the Ohio State Medical Association, so that it would not be in effect for the duration of the war and six months thereafter.

The proposal is sponsored by a group of Cuyahoga County physicians who are opposed to the formation of a medical service plan for their county which would be organized under the provisions of the Enabling Act and which is being proposed by another group of Cuyahoga County physicians, headed by Dr. Harry V. Paryzek, immediate past-president of the Ohio State Medical Association.

SPOKESMEN ARE HEARD

Before voting to oppose House Bill 244, The Council listened to a statement made by a spokesman for each group, present at The Council meeting on invitation. The position of the group sponsoring the bill was presented by Dr. Roscoe D. Leas, assistant clinical professor of medicine, Western Reserve University School of Medicine, and a former president of the Cleveland Academy of Medicine. The statement in opposition to the enactment of House Bill 244 and presenting the views of the group endeavoring to form a medical service plan in Cuyahoga County was presented by Dr. Dwight S. Spreng, member of the Economics Committee of the Cleveland Academy of Medicine.

Following the presentations, The Council carefully analyzed the statements which had been presented and reviewed the amendments proposed in House Bill 244 after which it voted against the enactment of the measure and adopted the following statement setting forth its reasons, instructing the Executive Secretary to publish this ac-

tion in the March issue of *The Journal* and to send copies of the statement to County Society presidents, secretaries and chairmen of Legislative Committees:

TEXT OF COUNCIL'S STATEMENT IN OPPOSITION TO HOUSE BILL 244

A proposal—House Bill 244—which is pending in the Ohio General Assembly, if enacted, would amend the Enabling Act for Medical Service Plans which became a law on August 5, 1941, so that it would become inoperable for the duration of the war and six months thereafter.

The Council of the Ohio State Medical Association, after careful consideration of the measure and after hearing arguments by its sponsors, is convinced that House Bill 244, if enacted, would nullify the enabling act and for that reason officially requests all members and all county medical societies to actively oppose its enactment.

The bill which eventually became the Enabling Act for Medical Service Plans was sponsored before the Ninety-Fourth Ohio General Assembly by the Ohio State Medical Association. Several committees of the Association spent several years collecting information from all parts of the country and studying similar laws in other states before that proposal was drafted. When drafted the bill was officially approved by The Council of the State Association and later by the House of Delegates without a dissenting vote. The bill was passed by the General Assembly with only a handful of negative votes and later was signed by the Governor. Many county medical societies officially endorsed the bill; none opposed its enactment.

The enabling act does not set forth a plan for providing medical care to certain groups of citizens. It merely provides a sound legal basis for the organization of a plan with strong and ample safeguards for those who would receive and for those who would render professional services. It is not compulsory in character but on the contrary, voluntary. It involves the prepayment principle—a principle which has the endorsement of the medical profession generally, providing certain other fundamental principles necessary to assure good medical care and professional supervision are observed.

These factors were thoroughly understood by the membership of the State Association when the enabling act was proposed and later when it was enacted. The measure contains basic principles which had the endorsement of the membership generally. It is definite in its provisions. When introduced it was considered by most of the members, we believe, as sound, progressive legislation and we are of the opinion that it is so regarded at this time. Therefore, The Council believes that there is no necessity for amendments at this time—especially not for changes which would nullify it and destroy its usefulness.

As stated, no group of physicians is compelled

to organize a medical service plan under the provisions of the enabling act. No citizen is compelled to become a subscriber to any plan which may be organized. No physician is compelled to participate professionally in any plan which may be formed. However, should a group of physicians and a group of citizens desire to jointly participate in a prepayment medical care plan, they may do so providing the provisions of the enabling act can be met.

The act is state-wide in scope. To destroy it because of a disagreement between physicians in a certain locality over details of a proposed "plan" would be unfair to the physicians and low-income citizens of other communities who may be desirous of initiating such plans. Without the enabling act they would be unable to lawfully proceed with programs that would be of tangible benefit to the health of their communities.

The Council is of the opinion that medical service plans on a prepayment basis, if established in accordance with the enabling act, can be made to operate successfully and with benefit to a large group of Ohio citizens. It believes that the initiation of the enabling act was a sound and proper step in the right direction, laying the basis for progressive programs under conservative professional supervision.

This Association was, and still is, sincere in endeavoring to take the lead in providing a means whereby good medical care can be made more readily available to those of low income without resort to subsidies, doles and government control. Obviously, nullification of the enabling act, even temporarily, would prevent constructive action at this time.

It is true that conditions have changed drastically since the outbreak of war. Many Ohio physicians are in the armed forces. Thousands of other Ohio citizens also are in active military service. We are of the opinion that those now serving with the Army or Navy, many of them on foreign soil and distant waters, readily realize that the clocks on the home front cannot be stopped until they return. Efforts must be continued to try to solve our domestic problems.

Constructive health programs must be initiated. Moreover, sound planning must be started now for the troublesome post-war days which are ahead. It will be too late to think of these questions when the military is demobilized. We believe that those in the services—at least most of them—have confidence in those who are trying to keep the wheels at home turning. An objective to which all substantial groups are committed is to try to preserve the principles of private enterprise and personal initiative to which the men in the service may return.

We feel that Ohio physicians now in the services do not resent planning for the future on the part of their colleagues at home and will not object to the initiation of constructive measures to meet existing health problems which will become critical at the close of the war unless they are solved or alleviated at this time. For this reason we see no logic to the argument that all progress with respect to the establishment of medical service plans shall cease until the end of the war.

There may be some men in military service who even in normal times would not care to participate in a medical service plan. Such men would have a right to express their views upon their return from service. There is a provision

in the enabling act itself which makes it mandatory upon the management of a medical service plan to have agreements at all times with at least 51 per cent of the physicians residing and actively practicing in the area in which the plan operates. Unless this is complied with the plan cannot function. It means that as physicians return from the armed forces a medical service plan agency would be compelled to expand its list of participating physicians in order to meet the 51 per cent requirement. If the necessary number of physicians fail to participate, the operation of the plan must cease and cannot continue until the required ratio is attained.

We are confident that the men in the service will approve of initiative which may be taken now by the medical profession in trying to solve problems which have existed too long and for which a real solution is long overdue. As a matter of fact, our greatest anxiety at this time is that the medical profession will not take sufficient interest in current developments and will not take forceful steps now to prepare for the future.

Because of the war, members of the medical profession have, of course, assumed many additional responsibilities. Many new demands have been made on the time and energy of physicians who are endeavoring to meet the health and medical needs of the civilian population. These needs are the same but the number of physicians available for meeting them has diminished. Obviously, for this reason the profession has been unable to devote as much time and thought to organized programs and long-range planning as is desirable. Undoubtedly, this is one of the chief reasons why there has not been more initiative on the part of physicians in more Ohio communities with respect to the organization of plans under the enabling act. The Council is hopeful that more consideration can be given to this question by the profession.

Events taking place before our very eyes and those which may be anticipated in the immediate post-war period will mold the economic and social pattern of America for several generations. Inasmuch as the health of its people is a vital factor in the destiny of any nation, the effect which impending and proposed social and economic changes will have on the practice of medicine dare not be ignored. Unfortunately too few physicians are fully aware of the impact which will result if some of the plans proposed by less qualified non-professional groups and individuals should be adopted. The medical profession is confronted with two alternatives, i.e., (1) to assume leadership or (2) become subservient to the leadership of non-professional and governmental organizations and agencies.

The present, as well as the future, offers a real challenge to the foresight and intelligence of the medical profession. Medicine cannot remain static. It must devise ways and means of improving methods of distributing its services. It must recognize that economic and social factors cannot be divorced from the practice of medicine and distribution of medical and health services.

The enactment of the enabling act for medical service plans was a forward step. It does and will serve a useful purpose in readjustments which are needed. It is a base on which constructive programs can be built. It should be maintained and kept intact to be made use of at any time.

Preliminary Plans Completed for Industrial Health Program; Organizing of Various Counties Next Step

INCREASED impetus was given to Ohio State Medical Association's projected industrial health program through plans made by the Committee on Industrial Health at a meeting in the headquarters office on Sunday, January 24. As a result of steps taken at that meeting, industrial health committees of county medical societies will soon be informed about how they can promote the program in their own communities, and Ohio physicians will be apprised of a number of educational opportunities in the field of industrial medicine.

Prior to the meeting of the committee as a whole, the Sub-Committee on Educational Refresher Courses and the Sub-Committee on Organization and Activities met separately to consider ways and means of forwarding their respective phases of the program.

PLAN REFRESHER COURSES

The Sub-Committee on Educational Refresher Courses, of which Dr. D. W. Heusinkveld, Cincinnati, is chairman, discussed the feasibility of sponsoring one-day postgraduate meetings in industrial health for Ohio physicians at various points in the state. These would be to a certain extent patterned after the successful Regional Postgraduate Lecture Courses held by the State Association in pre-war years. The sub-committee decided to try to gauge the demand for such courses in Ohio by means of a questionnaire, which is printed on page 269 in this issue of *The Journal*.

Also under consideration by this sub-committee was a suggestion to sponsor longer clinical courses or "internships" in industrial medicine to be taken in the medical departments of certain of Ohio's larger plants. Potential interest in this project will also be checked by means of the questionnaire.

ANNUAL MEETING PROGRAM

Members of the sub-committee cited as an excellent educational opportunity in the immediate future the morning session of the State Association's War Conference, to be held in Columbus March 30 and 31, which will be devoted entirely to industrial health. The sub-committee also commended *The Journal* as a medium for educational material on industrial health and learned from the Editor that essays in this field are now scheduled for the next several months.

The Sub-Committee on Organization and Activities, Dr. Carl A. Wilzbach, chairman, considered

ways in which the state committee can assist county medical societies to organize and carry out local programs of industrial health. It recommended that a "Manual of Activities" be prepared for the guidance of county society committees and that county medical societies, particularly in industrial areas, be urged to devote meetings soon to the establishment of programs as outlined in the manual.

COUNTIES ASSIGNED

The sub-committee recommended also that members of the state committee make themselves available to industrial health committees of county medical societies in their respective areas for guidance and counsel. The committee members distributed the various councilor districts among themselves as follows: Dr. Heusinkveld, First District; Dr. E. O. Swartz, Cincinnati, Second District; Dr. J. Craig Bowman, Upper Sandusky, Third District; Dr. Barney Hein, Toledo, Fourth District; Dr. George F. Sykes, Cleveland, Fifth District; Dr. O. J. Walker, Youngstown, Sixth and Seventh Districts; Dr. H. M. Platter, Columbus, Eighth, Ninth, and Tenth Districts; and Dr. Ralph Watkins, Cleveland, Eleventh District.

The suggested "Manual of Activities" is now being prepared by the state committee and will be available soon for members of county society committees.

NEW STATE DIVISION HEAD ASSISTING

A further recent development in industrial health in Ohio was the selection of Maj. Christopher Leggo, Surgeon (R), U. S. Public Health Service, to direct the Industrial Hygiene Service of the State Department of Health. Dr. Leggo is on loan from the Public Health Service to the State Department and has been assigned by Dr. R. H. Markwith, State Director of Health, to head that service.

Dr. Leggo is cooperating with the Industrial Health Committee of the State Association and has offered the facilities of his office and his own services to assist in launching its program. He comes to his new post with a background of 13 years in various phases of industrial medicine. During the past year he was Industrial Hygiene Physician for the Missouri State Board of Health, and prior to that he was a consultant in occupational hygiene for the California State Department of Health. He is an associate editor of "Industrial Medicine" and formerly served as secretary of the Western Association of Industrial Physicians and Surgeons. Formerly he was plant

Are You Interested in Refresher Courses on Industrial Health?

(Clip this; submit your comments; mail to the State Medical Association)

It has been suggested to the Committee on Industrial Health of the Ohio State Medical Association that it present refresher courses on industrial health for Ohio physicians as a part of its program to promote better health among industrial employees. Would you be interested in attending such courses? You can help the committee in planning its program by setting forth your views on this questionnaire.

* * * *

I would be interested in attending a series of one-day refresher courses in industrial health and medicine at a center near my home.....

(check)

* * * *

I would be interested in taking a more intensive course in industrial medicine, perhaps a two or three weeks' residency, in some Ohio industry with clinical instruction by members of the medical staff of the plant if such courses can be arranged.....

(check)

Signed

(Name)

(Street)

(City)

physician for the California and Hawaiian Sugar Refining Corporation.

NATIONAL COUNCIL FORMED

While these preparations were being made to launch Ohio's industrial health program, a National Health Advisory Council was organized in Washington by the United States Chamber of Commerce to consider national health problems in relation to war production. This council, composed of committees on community, industrial, and individual health, includes among its personnel some of the nation's foremost authorities on health. The committees and their members are:

Community health—Dr. Wilson G. Smillie, Cornell University Medical School, New York, chairman; Dr. Paul White, Boston, president, American Heart Association; Dr. J. Burns Amberson, New York; Dr. George Kosmak, New York; Dr. George R. Cowgill, New Haven, Conn.; Dr. Harry Bakwin, New York University College of Medicine, New York; Dr. Earnest L. Stebbins, New York City Health Commissioner; Dr. F. J. Underwood, State Health Officer, Jackson, Miss.; Dr. Henry F. Vaughan, University of Michigan, Ann Arbor; and Mr. Bailey Burritt, president, Committee on Neighborhood Health Development, New York.

Industrial Health—Dr. Leverett D. Bristol, health director, American Telephone and Telegraph Co., New York, chairman; Dr. Harvey

Bartle, Pennsylvania Railroad, Philadelphia; Prof. Philip Drinker, Harvard School of Public Health, Cambridge, Mass.; Lt. Col. Anthony Lanza, chief, occupational hygiene section, Office of the Surgeon General, U. S. Army, Washington; Dr. John J. Prendergast, medical director, Chrysler Corp., Detroit; Dr. Loyal A. Shoudy, Bethlehem Steel Corp., Bethlehem, Pa.; Dr. W. A. Sawyer, medical director, Eastman Kodak Co., Rochester, N. Y.; Dr. Harry E. Ungerleider, assistant medical director, Equitable Life Assurance Society, New York; Dr. John J. Wittmer, Consolidated Edison Co., New York; Mr. John D. Dorsett, Association of Casualty and Surety Executives, New York; and Mrs. G. W. Hardy, Lumbermen's Mutual Casualty Co., Chicago.

Individual Health—Dr. James E. Paullin, president-elect, American Medical Association, Atlanta, Ga.; Dr. Leroy Gardner, National Tuberculosis Association, Saranac Lake, N. Y.; Dr. George M. Pierson, University of Pennsylvania, Philadelphia; Dr. Russell Wilder, Mayo Clinic, Rochester, Minn.; Dr. Alfred Blalock, Johns Hopkins Hospital, Baltimore; Dr. Joseph C. Doane, Philadelphia; Marion G. Howell, R.N., president, National Organization for Public Health Nursing, New York; Dr. Arthur F. Chace, president, New York Academy of Medicine, New York; Dr. H. M. Marvin, Yale University, New Haven, Conn.; Dr. Louis Hamman, Baltimore; and Dr. Wallace C. Yater, Georgetown University, Washington.

OBJECTIVES OUTLINED

Dr. James S. McLester, professor of medicine at the University of Alabama, is general chair-

man of the council. Outlining its program, he said:

"The plan is for a broad educational effort designed to raise the nation's health levels. Once established, it is earnestly hoped these levels can be maintained after the war is won, as a means of continuing improvement of the national welfare.

"It is intended to promote both within and out of industry personal health, safety, nutrition and physical conditioning, with particular emphasis on war emergency needs and conditions. The program will be made available widely to industrial organizations, chambers of commerce, and communities. In any community it can be applied to reduce work absence, raise the morale and increase the physical effectiveness of workers and to assist their families in problems of health, diet, illness, and nursing.

"War production officials are appealing to the War Production Drive Committees, of which there are nearly 2000 in war plants, to keep the American workman healthy and fit, so as to gain man-hours in production. Only healthy workers can supply the needed drive to keep our armed forces supplied with the implements of war.

"Few investments can yield the returns that will come from an aggressive effort to better the national health."

Dr. Guild Elected President

Dr. B. Thurber Guild, Boston, has been elected president of Fairchild Brothers and Foster, a subsidiary of Winthrop Chemical Co., according to an announcement by Dr. Theodore G. Klumpp, Winthrop president. Dr. Guild, a member of the staff of Massachusetts General Hospital, is a counsellor of the Massachusetts Medical Society and a consultant of the Council of Pharmacy and Chemistry of the American Medical Association. He is secretary of the Boston Allergy Round Table and a member of the Society for Investigative Dermatology and the Society for the Study of Asthma and Allied Conditions.

Alcoholism Research Award

A cash award of \$1000 will be made to the scientist who reports the outstanding research on alcoholism during 1943, it was announced recently by The Research Council on Problems of Alcohol. The research for which the award will be granted must contribute new knowledge in some branch of medicine, biology, or sociology important to the understanding or prevention or treatment of alcoholism. Scientists planning to do research in connection with the award may send a statement of intention or write for further information to: The Director, The Research Council on Problems of Alcohol, Pondfield Road West, Bronxville, N. Y.

Approximately 80 Bills With Medical or Health Angle Introduced

Approximately 80 proposals having a medical or health angle are pending before the Ohio General Assembly and are being followed carefully by the Legislative Committee and the Headquarters Office staff. Those of direct interest have been explained in the weekly Legislative Bulletins; others will be reviewed from time to time as the occasion demands.

By official action of The Council on February 21, the following bills are being opposed in their present form by the Ohio State Medical Association:

House Bill 78, sponsored by Christian Science practitioners to exempt from the Medical Practice Act those claiming to treat physical and mental illness through prayer.

House Bill 95 proposing certain changes in sections of the Medical Practice Act relating to hearings and appeals and grounds for suspension or revocation of a license. This is sponsored by the osteopaths and one section of the bill would by legislation virtually make osteopaths "doctors of medicine" as the term is used in the various statutes.

House Bill 112, sponsored by the osteopaths which would create a separate osteopathic examining and licensing board and place two osteopaths on the State Medical Board.

House Bill 113, to provide that there shall be no "discrimination" against any physician or his patient on the part of the management of a Municipal Hospital. In other words it would strip the management of a Municipal Hospital of all control over its staff. Its effect would be to abolish all standards and would allow staff privileges to any physician—an osteopath or an unprofessional physician of any classification. Obviously, its enactment would have an injurious effect on all Municipal Hospitals, especially teaching institutions.

House Bill 345 to establish a separate examining and licensing board for chiropractors and increase their rights and privileges.

House Bill 244 to nullify the Enabling Act for Medical Service Plans, (See action of The Council, published on page 266 in this issue, opposing this measure.)

A number of bills making constructive changes in some of the public health laws have been approved. Also approval has been voiced on a change in the coroner law; a bill exempting medicine sold on a lawfully issued prescription from the retail sales tax; and a number of measures clarifying the welfare statutes.

WAR NOTES

CAPT. DON A. KELLY and Capt. John Eichorn are the first members of the Lakeside Unit to return to America since that Cleveland Army hospital group sailed for Australia shortly after the attack on Pearl Harbor. Sent back to the United States for 15 days "on a mission," the two Cleveland physicians returned exactly a year to the day from the date of their sailing—January 11. They report all is well with the unit and that its physicians and nurses are hard at work. Capt. Eichorn, incidentally, learned of his promotion to his present rank on the day of his return.

* * *

Capt. Walter M. Simpson, Dayton physician in the Navy medical corps, is the first Ohio physician who entered the Naval Reserve from private practice to win four gold stripes in that branch of the service, as far as is known in the editorial offices of *The Journal*. He was recently elevated to a captaincy.

* * *

Two Cleveland physicians who have been lifelong friends, Maj. Charles S. Higley and Maj. Bernard Larsen, are serving together in the Army Air Corps at Truax Field, Madison, Wis., where Maj. Higley is chief of medical service and Maj. Larsen is executive officer and chief of surgical service.

* * *

Lt. Col. E. A. Zimmerman, Dayton physician, has been named assistant director of operations and training at the Medical Replacement Training Center, Camp Barkeley, Texas. He was recently promoted to his present rank.

* * *

Capt. J. I. Goodman, Cleveland physician, has been ordered to Washington for a special course in tropical medicine. He had been assigned to an evacuation hospital at Camp Shelby, Miss.

* * *

Capt. W. R. Stager, Dover physician, told of his duties as a medical officer in the Army Air Force at a recent meeting of the Civil Air Patrol in Dover. Capt. Stager, who formerly belonged to the CAP, was home for a brief visit en route to a new assignment at the Air Service Command, Ogden, Utah. He had previously been stationed at Randolph Field and at air bases in Maine, Tennessee, and Georgia.

Lt. Comdr. W. M. Johnston, Akron physician in the Navy medical corps, recently received a commendation from the Commander of the Asiatic Fleet for his action in the early fighting at Guadalcanal, and notice of the citation was sent to President Roosevelt. Comdr. Johnston returned to the United States recently to recover from wounds sustained in the Battle of the Solomons, and he is now assigned to the U. S. Naval Hospital, Seattle, Wash.

* * *

Lt. (j.g.) Albert G. Roode, a 1939 graduate of Western Reserve University School of Medicine, received commendation for his recent performance of a successful emergency appendectomy aboard a destroyer during a violent storm.

* * *

Maj. R. J. Borer, Toledo physician, is serving as acting chief of medical service at Billings General Hospital, Fort Benjamin Harrison, Ind. He was elevated to his present rank a year ago.

* * *

Maj. Symmes Oliver, Cincinnati, a surgeon in the U. S. Public Health Service Reserve, has been named medical officer for the Alien Detention Center, Crystal City, Texas.

* * *

The Toledo Academy of Medicine recently unveiled two bronze plaques bearing the names of its 140 members who are in military service. (Other societies please note.)

* * *

Machinist Mate Howard Peppercorn, 18-year-old Cleveland, was astonished to find that the surgeon who treated the wounds he suffered during a sea battle in the South Pacific was Lt. Comdr. George W. Crile, Jr., the doctor who had removed his appendix back home in Cleveland shortly before the two Ohioans entered military service.

* * *

Letters expressing appreciation for their membership card in the State Association and commending *The Journal* as a source of helpful information and current news were received recently from the following Ohio medical officers: Lt. Col. Earl E. Smith, Shaker Heights, commanding officer of the 310th Medical Battalion, Custer Division, Camp Shelby, Miss.; Maj. Harry E. Caldwell, Delaware, commanding officer of the 63rd Station Hospital, New Orleans Staging Area,

Ohio Physicians To Be Asked To Submit Revised Data About Themselves To The Procurement and Assignment Service

SOME time during the next few weeks every Ohio physician who is not in military or full-time government service and whose present address can be determined will receive from the Ohio Procurement and Assignment Service, War Manpower Commission, a request for certain biographical and professional information.

IT IS THE SINCERE HOPE OF THE OHIO PROCUREMENT AND ASSIGNMENT SERVICE THAT EACH PHYSICIAN RECEIVING THE SHORT QUESTIONNAIRE WILL IMMEDIATELY COOPERATE BY FILLING IT OUT AND MAILING IT TO 1005 HARTMAN THEATER BUILDING, COLUMBUS, OHIO.

The status of many Ohio physicians has changed since the American Medical Association survey two years ago. The purpose of this new survey is to bring the files of the Procurement and Assignment Service up to date and to assist the Service in trying to maintain a proper and equitable distribution of physicians for civilian and military needs. The survey has been requested by the Directing Board of the Procurement and Assignment Service, Washington. The information obtained will be of great assistance to the Service in determining whether a community has a sufficient number of active physicians for civilian needs and in trying to find solutions for areas where a need for more physicians exists.

ANY PHYSICIAN WHO DOES NOT RECEIVE A QUESTIONNAIRE AT THE TIME OTHER PHYSICIANS IN HIS COMMUNITY RECEIVE ONE, SHOULD WRITE DR. ROBERT CONARD, CHAIRMAN, PROCUREMENT AND ASSIGNMENT SERVICE, 1005 HARTMAN THEATER BUILDING, REQUESTING THAT ONE BE SENT TO HIM. ADDRESSES MAY BE MISSING ON SOME MEN.

HELP PUT OHIO OVER THE TOP AGAIN BY RETURNING YOUR QUESTIONNAIRE PROMPTLY!

New Orleans, La.; Maj. John E. L. Keyes, Youngstown, Bushnell General Hospital, Brigham City, Utah; Maj. Glenn H. Walker, Woodsville, Medical Replacement Training Center, Abilene, Texas; Capt. Gerald N. Wilson, Columbus, Station Hospital, Fort Jackson, S. C.; Lt. V. A. Simiele, Logan, U. S. Public Health Service, Allston, Mass.; Lt. Robert R. Crawford, Mansfield, Navy 1110, % Fleet P.O., San Francisco; Lt. Col. Walter B. Johnston, Lakewood, 52nd Medical Battalion, Fort Jackson, S.C.; Maj. Burton E. Hyde, Troy, New Orleans Port of Embarkation Station Hospital; Capt. George C. Tedrow, Crooksville, Air Corps Technical Training Command, St. Louis; Capt. Frank G. Lawyer, Cambridge, Camp Swift, Texas; and Lt. Frank G. Guarnieri, Warren, 107th Field Artillery Battalion, Camp Gordon-Johnson, Texas.

* * *

Lt. Col. George C. Mynchenberg, Elyria physician, was among the medical officers who recently completed a course at the Army Medical Field Service School, Carlisle Barracks, Pa.

The Army general hospital now under construction near Cambridge has been designated the Fletcher General Hospital by the War Department in honor of Col. John Pierpont Fletcher, medical corps officer who died at Carlisle, Pa., May 11, 1941. Col. Fletcher, then a major, organized the Medical Department Equipment Laboratory at Carlisle Barracks in 1921, and under his direction for 10 years it developed all the field medical equipment used by the Army.

Commanding officer of Fletcher General Hospital is Col. Taylor E. Darby, who was until recently in charge of the School for Special Service, Fort George G. Meade, Maryland.

* * *

Among graduates of the fifth class of Aviation Medical Examiners to be trained under the new system of separating the didactic and clinical portions of the course were the following Ohio physicians: Lt. Archibald M. Adams, Lima; Capt. George D. Beamer, Cincinnati; Lt. L. D. Bonar, Mansfield; Lt. Harry Bremen, Dayton; Lt. Alexander S. Fisher, East Liverpool; Lt. Ralph M.

Gignac, Dayton; Lt. Robert C. Haubrich, Pataaskala; Lt. James R. Janney, North Baltimore; Lt. Edward T. Keating, Hamilton; Lt. George W. LeSar, Jr., Cleveland; Capt. Theodore L. Light, Dayton; Capt. Lawrence J. Lohr, Dayton; Capt. Meyer N. Margolis, Cincinnati; Lt. Harold M. Messenger, Cleveland; Lt. William J. Neal, Archbold; Lt. George F. Nisius, Cleveland; Lt. Earl W. Schafer, Jr., Cincinnati; Capt. Julius P. Schweitzer, Jr., Lakewood; Lt. Harold E. Snedden, Zanesfield; Capt. Walter R. Stager, Dover; Lt. Gwyn H. Start, Toledo; Lt. James W. Tirey, Jr., Anna; Capt. Carl F. Wagner, Cincinnati; Lt. Marlin R. Wedemeyer, Oak Hill; Lt. Russell L. R. Wiessinger, Sidney; and Lt. Paul B. Winston, Cincinnati.

* * *

Lt. Harold A. Robinson, Elyria physician, was selected by the Elyria Junior Chamber of Commerce as that city's "most outstanding young man for the year 1942." Because Lt. Robinson, now at Johns Hopkins University, Baltimore, on a special Army Air Corps assignment, was not present in person, his father, A. J. Robinson, accepted the award on his son's behalf when it was presented at the Jaycees' annual banquet.

* * *

The War Department has announced the appointment of Lt. Col. K. H. Bailey, regular Army medical officer who has been with the AEF for 14 months in Iceland, as executive officer of the Army General Hospital now under construction near Cambridge. The hospital is expected to be completed by mid-summer.

* * *

Comdr. Stanley Gardner, Cleveland physician, is serving as chief of the Department of Anesthesia and Oxygen Therapy at the U. S. Naval Hospital, Great Lakes, Ill. The department was organized by him during the past year. Comdr. Gardner was promoted to his present rank recently.

* * *

Capt. Ivor MacIvor Campbell, Akron physician, is a medical officer with the 324th Bombardment Squadron somewhere overseas. Prior to his commissioning in the U. S. Army Air Corps, he served as a Flight Lieutenant in the Royal Canadian Air Force.

* * *

Lt. C. R. Marlowe, Bradner physician now "somewhere in the Pacific" with the Army medical corps, wrote a letter to a friend back home in which he described life at his outpost and told casually that he "went fishing yesterday and besides catching about 700 pounds of fish managed to get seasick and acquire a beautiful sunburn."

Capt. W. W. Trostel, Piqua physician and former member of the State Association's Subcommittee on Legislation, is commanding officer of a medical detachment at Drew Field, Tampa, Fla. He writes that he is serving in a dispensary which cares for between 400 and 500 cases daily.

* * *

Capt. Frank G. Lawyer, Cambridge physician, recently was assigned to Camp Swift, Texas, where he is chief of dermatology and syphilology. He and Mrs. Lawyer reside in Austin, Texas.

* * *

Eugene W. Scott, Ph.D., research assistant at the Kettering Laboratory of Applied Physiology, University of Cincinnati College of Medicine, has been appointed gas officer in the medical division of the Office of Civilian Defense, Washington.

* * *

Maj. Burton E. Hyde, Troy physician, is serving as hospital inspector, and military intelligence and training officer at the New Orleans Port of Embarkation Station Hospital.

* * *

Capt. Henry M. Hooper, medical administrative corps officer and former superintendent of Cincinnati General Hospital, is attached to Army General Hospital No. 25, Fort Knox, Ky., which is the hospital unit formed by the staff of Cincinnati General Hospital. Prior to his commissioning, Capt. Hooper was in the Office of Civilian Defense, Washington, as a hospital consultant in the medical division.

* * *

Mrs. Julie E. Goodman, mother of Capt. Julien M. Goodman, Cleveland physician who was taken prisoner by the Japs after the fall of Corregidor, writes that her most recent report of her son came from Lt. Ann A. Bernatitus, one of the 25 Army nurses who escaped from Bataan by submarine. Lt. Bernatitus said that Capt. Goodman was alive and well when she left and that, like other medical officers imprisoned in the Philippines, "had plenty of sick and wounded to take care of." Mrs. Goodman's last previous report had been a letter from Bataan dated March 5, 1942, which was one of the many letters from Americans in the Philippines picked up from the surface of the sea.

* * *

Capt. George C. Tedrow, Crooksville physician, reported to the Army Medical School, Washington, on Feb. 27 for a two-month course in tropical medicine. Upon completion of his studies he will return to his station at the headquarters of the Second District, Army Air Forces Technical Training Command, St. Louis, where he has been

serving as assistant district surgeon and commanding officer of the headquarters medical detachment.

* * *

Maj. George G. Hunter, Ironton physician and former member of the Ohio Senate, is on the staff of the Station Hospital at Camp Bowie, Texas.

* * *

Maj. Arthur A. Brown, Canal Fulton physician, is now taking a special course at the Command and General Staff School, Fort Leavenworth, Kas.

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Capt. William R. Calland, Barberton physician, and Capt. Woodrow S. Hazel, Youngstown physician, were among the Air Corps medical officers recently graduated as aviation medical examiners from the School of Aviation Medicine, Randolph Field, Texas.

* * *

Maj. Joseph Fetterman, Cleveland physician, is on the staff of the Army's newly established School of Military Neuropsychiatry at Lawson General Hospital, Atlanta, Ga.

* * *

Christmas Eve nostalgia was alleviated for two Findlay physicians serving with the Army in England by the fact that they met unexpectedly in an English hospital and were able to spend the holiday together. They are Maj. R. S. Rilling and Maj. L. W. Goodman. Maj Goodman has been in England since last June, and Maj. Rilling was sent there in December.

* * *

Lt. James R. Bone, Cincinnati physician, has been selected by the War Department to take a special course in anesthesiology at Mayo Hospital, Rochester, Minn.

* * *

Dr. Esmond R. Long, director, Henry Phipps Institute, Philadelphia, has been commissioned a Lieutenant-Colonel, Medical Corps, U.S. Army, in charge of the Tuberculosis Division, with headquarters in the office of Surgeon General James C. Magee.

Ohio Doctors Totaling 33 Enter Army, Navy, Other Services Recently

Since the last issue of *The Journal*, 33 additional Ohio physicians have entered the armed forces or have taken full-time positions with Federal agencies for the duration. As of February 22, the total of Ohio physicians in the services, including non-military agencies, was 2,404. The number in the army is 2,097; navy, 269; other services, 38.

Following are the names of those entering the

services during the past month, the breakdown by counties, and promotions. These lists are unofficial. If there are errors *The Journal* would appreciate being properly informed:

OHIO PHYSICIANS ENTERING SERVICES DURING PAST MONTH

Name	City	Rank
Arapakis, P. Z.	Akron.....	Capt., U.S.A.
Bartlett, Robert M.	Akron.....	Capt., U.S.A.
Brief, Bernard J.	Springfield.....	1st Lt., U.S.A.
Bowers, Chas. A.	Cleveland.....	Lt. Col., U.S.A.
Catalona, William	Cleveland.....	1st Lt., U.S.A.
Cohn, Manning E.	Cleveland.....	1st Lt., U.S.A.
Damitz, J. C.	Akron.....	Lt., U.S.N.
Gitman, W. H.	Dayton.....	1t Lt., U.S.A.
Gordon, Harold J.	Columbus.....	Major, U.S.A.
Hahn, Robert C.	Elyria.....	Lt., U.S.N.
Harris, Leonard H.	Elyria.....	Lt., U.S.N.
Harris, Wm. G.	Bridgeport.....	1st Lt., U.S.A.
Hart, A. J.	Cleveland.....	Lt., U.S.N.
Helmbold, A. F. W.	Cincinnati.....	Capt., U.S.A.
LaVallee, Jos. C. E.	Cincinnati.....	Lt. Comdr., U.S.N.
Longnaker, John W.	Cincinnati.....	1st Lt., U.S.A.
McFarland Harry T.	Cincinnati.....	Lt. Comdr., U.S.N.
Mills, A. M.	Ashtabula.....	Capt., U.S.A.
Peters, Eugene W.	Cleveland.....	Lt. Comdr., U.S.N.
Rohrbaugh, John R.	Massillon.....	Capt., U.S.A.
Schultz, Wm. R.	Wooster.....	Capt., U.S.A.
Shane, E. S.	Circleville.....	Lt. Comdr., U.S.N.
Totterdale, W. G.	Warren.....	Lt. Comdr., U.S.N.
Tsorvos, G. P.	Cortland.....	Lt. (j.g.) U.S.N.
Weinman, Edw. B.	Steubenville.....	Capt., U.S.A.
Weir, Wm. C.	Cleveland.....	Lt., U.S.N.
Winston, Samuel H.	Dover.....	Capt., U.S.A.

* * *

Name	City	Service
Beare, Ralph J.	Celina	
Passed Asst. Surgeon.....		U.S.P.H.S.
Bresin, Bernard P.	Cleveland	
Asst. Surgeon (Res.).....		U.S.P.H.S.
Franzblau, Abraham N.	Cincinnati	
Passed Asst. Surgeon (Res.).....		U.S.P.H.S.
Frisch, Michael R.	Cleveland	
Captain		Vet. Admin.
McDevitt, Chas. J.	Cincinnati	
Senior Surgeon (Res.).....		U.S.P.H.S.
Szucs, M. M.	Youngstown	
Passed Asst. Surgeon (Res.).....		U.S.P.H.S.

WIN PROMOTIONS

Name	City	Rank
Axthelm, M. F.	Caledonia.....	Capt., U.S.A.
Barker, Harold J.	Cleveland Hgts.....	Major, U.S.A.
Benjamin, Julien E.	Cincinnati.....	Col., U.S.A.
Boehm, Lloyd A.	Toledo.....	Lt., U.S.N.
Brown, Arthur A.	Canal Fulton.....	Major, U.S.A.
Buckley, C. J.	Cleveland.....	Comdr., U.S.N.
Crum, Louis J.	Cincinnati.....	Capt., U.S.A.
DeMeter, Steven R.	Cleveland.....	Major, U.S.A.
Eddy, Howard C.	Cleveland.....	Col., U.S.A.
Eichhorn, John P.	Cleveland.....	Capt., U.S.A.
Forrester, Jos. C.	Columbus.....	Capt., U.S.A.
Galinson, Sim H.	Dayton.....	Capt., U.S.A.
Gardner, J. Stanley	Cleveland.....	Comdr., U.S.N.
Gibson, H. H.	Akron.....	Capt., U.S.A.
Gordon, Nathan G.	Akron.....	Capt., U.S.A.
Greenburger, Maurice L.	Canton.....	Capt., U.S.A.
Howe, Chas. E.	Westerville.....	Lt. Col., U.S.A.
King, Douglass S.	Alliance.....	Capt., U.S.A.
Kirk, T. M.	Dayton.....	Major, U.S.A.
Lawrence, Hans W.	Cleveland.....	Lt. Col., U.S.A.
Lind, S. C.	Cleveland.....	Comdr., U.S.N.
Lytle, R. P.	Cleveland.....	Major, U.S.A.
McCammon, F. A.	Van Wert.....	Capt., U.S.A.
Merchant, Frederick T.	Marion.....	Capt., U.S.A.
Miller, M. M.	Steubenville.....	Major, U.S.A.
Northrup, Spencer W.	Toledo.....	Lt., U.S.N.
Ormond, Alexander P.	Cuyahoga Falls.....	Major, U.S.A.
Osmond, John D.	Cleveland Hgts.....	Capt., U.S.A.
Perry, Claude S.	Columbus.....	Lt. Col., U.S.A.
Roush, Carl E.	Cincinnati.....	Major, U.S.A.
Sawyer, Warren C.	Marion.....	Capt., U.S.A.
Sharkey, Thomas P.	Dayton.....	Lt. Comdr., U.S.N.
Smith, Earl E.	Shaker Heights.....	Lt. Col., U.S.A.
Spisak, Edw. A.	Cleveland.....	Lt., U.S.N.

Name	City	Rank
Swango, Wm. R.	Ironton.....	Capt., U.S.A.
Udelf, Maxwell S.	Cleveland.....	Major, U.S.A.
Wadsworth, Francis M.	Mansfield.....	Lt. Col., U.S.A.
Wilson, Gerald N.	Columbus.....	Capt., U.S.A.
Zimmerman, Edw. A.	Dayton.....	Lt. Col., U.S.A.

TABULATION BY COUNTIES

Adams	2	Guernsey	5	Muskingum ..	7
Allen	37	Hamilton	317	Noble	1
Ashland	10	Hancock	13	Ottawa	8
Ashtabula	17	Hardin	7	Paulding	2
Athens	11	Harrison	4	Perry	4
Auglaize	5	Henry	2	Pickaway	4
Belmont	9	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	24	Holmes	2	Preble	7
Carroll	1	Huron	13	Putnam	5
Champaign	8	Jackson	1	Richland	40
Clark	30	Knox	11	Ross	16
Clermont	9	Jefferson	29	Sandusky	12
Clinton	7	Lake	17	Scioto	18
Columbiana	9	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	10	Logan	9	Stark	86
Cuyahoga	575	Lorain	34	Summit	123
Darke	6	Lucas	143	Trumbull	28
Defiance	3	Madison	6	Tuscarawas	17
Delaware	5	Mahoning	92	Union	1
Erie	10	Marion	16	Van Wert	9
Fairfield	8	Medina	12	Vinton	2
Fayette	2	Meigs	1	Warren	3
Franklin	203	Mercer	6	Washington	6
Fulton	5	Miami	13	Wayne	12
Gallia	6	Monroe	1	Williams	9
Geauga	3	Montgomery	121	Wood	13
Greene	8	Morgan	3	Wyandot	3
		Total			2404

Northern Tri-State Medical Meeting In Ann Arbor, April 13

Faculty members of the University of Michigan Medical School will present the scientific program of the Northern Tri-State Medical Association's 1943 meeting to be held April 13 in the Rackham Building, University of Michigan campus, Ann Arbor, Mich. The all-day meeting will begin at 9 a. m. and will continue through 5 p. m.

Speakers and their subjects at the morning session will be: Dr. C. C. Sturgis, professor of internal medicine, "The Clinical Significance of Leukopenia"; Dr. Frank N. Wilson, professor of internal medicine, "The Diagnosis and Treatment of Coronary Artery Disease"; Dr. Herman H. Riecker, associate professor of internal medicine in postgraduate medicine, "Differential Diagnosis and Management of Hypertension"; Dr. Richard H. Lyons, assistant professor of internal medicine, "Management of the Edematous Patient"; Dr. Russell N. DeJong, associate professor of neurology, "Headaches; Diagnosis and Treatment"; Dr. Carl D. Camp, professor of neurology, "Emotional Influences on the Gastro-intestinal Tract."

Preston W. Slosson, Ph.D., professor of history at the University of Michigan, will talk on "World Events" following a noon luncheon at the Michigan League. Noted teacher, author, and journalist, Prof. Slosson has been a prominent figure in international affairs for more than two decades. In 1918 he served as assistant librarian of the

American Commission to Negotiate Peace. In 1932-33 and in 1938-39 he was named Carnegie Visiting Professor at several English universities. Among the books he has written are: "Europe Since 1870," "The Problem of Austro-German Union," "Growth of European Civilization," and "Twentieth Century Europe."

The afternoon session will begin at 1:30, and the following speakers and subjects will comprise the program: Dr. A. C. Curtis, professor of dermatology and syphilology, "Treatment of Tinea Infections"; Dr. Frederick A. Collier, professor of surgery, "Fundamental and Clinical Considerations of Traumatic Shock"; Dr. J. Matthews Farris, instructor in surgery, "Use of Reduced Temperatures in the Management of Peripheral Vascular Disease"; Dr. Reed M. Nesbit, associate professor of surgery, "Present Status of Hormone Therapy for Cancer of the Prostate"; Dr. F. Bruce Fraley, professor of ophthalmology, "Questions Commonly Asked About the Eyes by Patients"; Dr. A. C. Furstenberg, professor of otolaryngology, "Complications of Acute Upper Respiratory Infections"; and Dr. Norman F. Miller, professor of obstetrics and gynecology, "Caudal Anesthesia in Obstetrics."

Officers of the Association are: Dr. Howard H. Cummings, Ann Arbor, president; Dr. E. Benjamin Gillette, Toledo, vice president; Dr. F. R. Nicholas Carter, South Bend, secretary; and Dr. O. P. Klotz, Findlay, treasurer. Membership of the Association covers Ohio, Indiana and Michigan.

Obstetrics Board Examinations

The American Board of Obstetrics and Gynecology announces that general oral and pathological examinations, which constitute Part Two of its examinations for certification, will be held at Pittsburgh from Wednesday, May 19, through Tuesday, May 25, 1943. Formal notice of the exact time of each candidate's examination will be mailed to him several weeks in advance of the date. Candidates for re-examination must make written application before April 15. According to instructions from the Surgeon General, Army medical officers wishing to take these examinations may request detached duty for that purpose. Inquiries about the examinations should be addressed to Dr. Paul Titus, secretary of the Board, 1015 Highland Bldg., Pittsburgh.

Toledo—New staff officers of Mercy Hospital are: Dr. L. R. Effler, chief; Dr. Clarence Berger, vice-chief and Dr. Robert Heatley, secretary.

Youngstown—Dr. Wm. M. Skipp spoke on "Endocrinology" at a meeting of the Industrial Nurses' Section of District 3, Ohio State Nurses' Association.

Opinion of U. S. Supreme Court Affirming the Conviction Of the A.M.A. on Restraint of Trade Charges

IN the February issue of *The Journal*, page 169, brief mention was made of the recent decision of the United States Supreme Court upholding the conviction of the American Medical Association and the District of Columbia Medical Society on charges of restraint of trade. Since that time the text of the court's opinion, written by Justice Owen J. Roberts, has been made available. It reads as follows:

Petitioners have been indicted and convicted of conspiring to violate Section three of the Sherman Act, by restraining trade or commerce in the District of Columbia. They are respectively corporations of Illinois and of the District of Columbia. Joined with them as defendants were two unincorporated associations and 21 individuals, some of whom are officers or employees of one or other of the petitioners, the remainder being physicians practicing in the District of Columbia and members of the petitioners serving, as to some of them, on various committees of the petitioners having to do with professional ethics and with the practice of medicine by petitioners' members.

CHARGES EXPLAINED

For the moment it is enough to say that the indictment charged a conspiracy to hinder and obstruct the operations of Group Health Association, Inc., a nonprofit corporation organized by government employees to provide medical care and hospitalization on a risk-sharing prepayment basis. Group Health employed physicians on a full-time salary basis and sought hospital facilities for the treatment of members and their families. This plan was contrary to the code of ethics of the petitioners. The indictment charges that, to prevent Group Health from carrying out its objects, the defendants conspired to coerce practicing physicians, members of the petitioners, from accepting employment under Group Health, to restrain practicing physicians, members of the petitioners, from consulting with Group Health's doctors who might desire to consult with them, and to restrain hospitals in and about the city of Washington from affording facilities for the care of patients of Group Health's physicians.

The District Court sustained a demurrer to the indictment on the grounds, among others, that neither the practice of medicine nor the business of Group Health is trade as the term is used in the Sherman Act. On appeal the Court of Appeals reversed, holding that the restraint of trade prohibited by the statute may extend both to medical practice and to the operations of Group Health.

CITES RECORD OF CASE

The case then went to trial in the District Court. Certain defendants were acquitted by direction of the judge. As to the others, the case was submitted to the jury, which found the petitioners guilty and all the other defendants not guilty. From judgments of conviction the petitioners appealed to the Court of Appeals, which reiterated its ruling as to the applicability of

Section 3 of the Sherman Act, considered alleged trial errors, and affirmed the judgments.

We granted certiorari limited to three questions which we thought important: 1. Whether the practice of medicine and the rendering of medical services as described in the indictment are "trade" under Section 3 of the Sherman Act. 2. Whether the indictment charged or the evidence proved "restraints of trade" under Section 3 of the Sherman Act. 3. Whether a dispute concerning terms and conditions of employment under the Clayton and Norris-La Guardia acts was involved, and, if so, whether petitioners were interested therein and therefore immune from prosecution under the Sherman Act.

First. Much argument has been addressed to the question whether a physician's practice of his profession constitutes trade under Section 3 of the Sherman Act. In the light of what we shall say with respect to the charge laid in the indictment, we need not consider or decide this question.

GROUP HEALTH A BUSINESS

Group Health is a membership corporation engaged in business or trade. Its corporate activity is the consummation of the cooperative effort of its members to obtain for themselves and their families medical service and hospitalization on a risk-sharing prepayment basis. The corporation collects its funds from members. With these funds physicians are employed and hospitalization procured on behalf of members and their dependents. The fact that it is cooperative, and procures service and facilities on behalf of its members only, does not remove its activities from the sphere of business.

If, as we hold, the indictment charges a single conspiracy to restrain and obstruct this business it charges a conspiracy in restraint of trade or commerce within the statute. As the Court of Appeals properly remarked, the calling or occupation of the individual physicians charged as defendants is immaterial if the purpose and effect of their conspiracy was such obstruction and restraint of the business of Group Health. The court said "And, of course, the fact that defendants are physicians and medical organizations is of no significance, for Section 3 prohibits 'any person' from imposing the proscribed restraints. . . ." It is urged that this was said before this court decided *Apex Hosiery Co. vs. Leader*, 310 U. S. 469. But nothing in that decision contradicts the proposition stated. Whether the conspiracy was aimed at restraining or destroying competition, or had as its purpose a restraint of the free availability of medical or hospital services in the market, the *Apex* case places it within the scope of the statute.

REFERS TO INDICTMENT

Second, This brings us to consider whether the indictment charged, or the evidence proved, such a conspiracy in restraint of trade. The allegations of the indictment are lengthy and detailed. After naming and describing the defendants and the Washington hospitals, it devotes many para-

graphs to a recital of the plan adopted by Group Health and alleges that, principally for economic reasons, and because of fear of business competition, the defendants have opposed such projects.

The indictment then recites the size and importance of the petitioners, enumerates means by which they can prevent their members from serving Group Health plans, or consulting with physicians who work for Group Health and can prevent hospitals from affording facilities to Group Health's doctors.

In charging the conspiracy, the indictment described the organization and operation of Group Health and states that, from January, 1937, to the date of the indictment, the defendants, the Washington hospitals, and others cognizant of the premised facts, have combined and conspired together for the purpose of restraining trade in the District of Columbia."

In five paragraphs the pleading states the purposes of the conspiracy. The first is the purpose of restraining Group Health from doing business; the second, that of restraining members of Group Health from obtaining adequate medical care according to Group Health's plan; the third, that of restraining doctors serving Group Health in the pursuit of their calling; the fourth, that of restraining doctors not on Group Health's staff from practicing in the District of Columbia in pursuance of their calling; and the fifth, that of restraining the Washington hospitals in the business of operating their hospitals.

REFERS TO HOSPITAL INFLUENCE

After reciting certain of the proceedings and plans adopted to forward the conspiracy, the indictment alleges that the conspiracy and the intended restraints which have resulted from it, have been effectuated "in the following manner and by the following means" and alleged that the defendants have combined and conspired with the plan and purpose to hinder and obstruct Group Health Association, Inc., in procuring and retaining on its medical staff qualified doctors and to hinder and obstruct the doctors serving on that staff from obtaining consultations with other doctors and specialists practicing in the District of Columbia. It states that, pursuant to this plan and purpose, the defendants have resorted to certain means to accomplish the end, and recounts them.

In another paragraph, the defendants are charged to have conspired with "the plan and purpose to hinder and obstruct Group Health Association, Inc., in obtaining access to hospital facilities for its members and to hinder and obstruct the doctors on the medical staff of Group Health from treating and operating on their patients in Washington hospitals." It is alleged that, pursuant to this plan and purpose, defendants have done certain acts to deter hospitals with which they were connected and over which they exercised influence, from affording hospital facilities to Group Health's doctors.

The petitioners' contention is, in effect, that the indictment charges five separate conspiracies defined by their separate and recited purposes, namely, conspiracy to obstruct the business of Group Health, to obstruct its members from obtaining the benefit of its activities, to obstruct its doctors from serving it, to obstruct other doctors in the practice of their calling, and to restrain the business of Washington hospitals. The petitioners say that they were entitled to have the trial court rule upon the sufficiency in

law of each of these charges and, as this was not done, the general verdict of guilty cannot stand.

CITES APPEALS COURT ACTION

They urge that even though some of the named purposes relate to the business of Group Health, and that business be held trade within the meaning of the statute, yet, as the practice of medicine by doctors not employed by Group Health is not trade, and the operations of Washington hospitals are not trade, the last two purposes specified cannot constitute violations of section 3 and the jury should have been so instructed. In this view they insist that the jury may have convicted them of restraining physicians unconnected with Group Health, or of restraining hospitals, and, if so, the verdict and judgment cannot stand.

If in fact the indictment charges a single conspiracy to obstruct and restrain the business of Group Health, and if the recited purposes are really only subsidiary to that main purpose or aim, or merely different steps toward the accomplishment of that single end, and if the cause was submitted to the jury on this theory, these contentions fail.

When the case first went to the Court of Appeals that tribunal construed the indictment as charging but a single conspiracy. It said:

"The charge, stated in condensed form, is that the medical societies combined and conspired to prevent the successful operation of Group Health's plan, and the steps by which this was to be effectuated were as follows: (1) To impose restraints on physicians affiliated with Group Health by threat of expulsion or actual expulsion from the societies; (2) To deny them the essential professional contacts with other physicians, and (3) To use the coercive power of the societies to deprive them of hospital facilities for their patients.

AGREES WITH LOWER COURT

In the trial the District Court conformed its rulings to this decision and submitted the case to the jury on the theory that the indictment charged but one conspiracy.

We think the courts below correctly construed the indictment. It is true that in describing the conspiracy five purposes are stated which the conspiracy was intended to further, but in a later paragraph, still in the charging part of the instrument, it is alleged that the purpose was to hinder and obstruct Group Health in various ways and by various coercive measures which are identical with the "purposes" before stated. The trial judge, after calling the jury's attention to the juxtaposition of these two formulations of the charge, added:

"These purposes, it is alleged, were to be attained by certain coercive measures against the hospitals and doctors designed to interfere with employment of doctors by Group Health and use of the hospitals by members of its medical staff and their patients."

In immediate context the judge added:

"To sustain that charge the government must prove beyond a reasonable doubt that a conspiracy did, in fact, exist to restrain trade in the district in at least one of the several ways alleged, and according to the particular purpose and plan set forth."

At another point the trial judge summarized the government's claim that the evidence in the case showed opposition by the petitioners to Group Health and its plan; that they feared com-

petition between the plan and the organized physicians and that, to obstruct and destroy such competition, the petitioners conspired with certain officers and members and hospitals to prevent successful operation of Group Health's plan by imposing restraints upon physicians affiliated with Group Health by denying such physicians professional contact and consultation with other physicians, and by coercing the hospitals to deny facilities for the treatment of their patients.

QUOTES LOWER COURT

Again the judge charged:

"Was there a conspiracy to restrain trade in one or more of the ways alleged?" And again: "If it be true . . . that the District society, acting only to protect its organization, regulate fair dealing among its members and maintain and advance the standards of medical practice, adopted reasonable rules and measures to those ends, not calculated to restrain Group Health, there would be no guilt, though the indirect effect may have been to cause some restraint against Group Health."

We need add but a word as to the sufficiency of the proof to sustain the charge. The petitioners in effect challenge the sufficiency, in law, of the indictment. They hardly suggest that if the pleading charges an offense there was no substantial evidence of the commission of the offense. But, however, the argument is viewed, we agree with the courts below that the case was one for submission to a jury. No purpose would be served by detailed discussion of the proofs.

Third. We hold that the dispute between petitioners and their members, and Group Health and its members, was not one concerning terms and conditions of employment within the Clayton and the Norris-La Guardia Acts.

Section 20 of the Clayton Act, as expanded by section 13 of the Norris-La Guardia Act, is the only legislation which can have any bearing on the case. Section 20 applies to cases between "an employer and employees, or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute concerning terms or conditions of employment . . . ; and provides that none of the acts specified in the section shall "be considered or held to be violations of any law of the United States."

DEFINES LABOR DISPUTE

Section 13 of the Norris-La Guardia Act defines a labor dispute as including "any controversy concerning terms or conditions of employment, or concerning the association or representation of persons in negotiating, fixing, maintaining, changing, or seeking to arrange terms or conditions of employment, regardless of whether or not the disputants stand in the proximate relation of employer and employee."

It also provides that "a case shall be held to involve or to grow out of a labor dispute when the case involves persons who are engaged in the same industry, trade, craft, or occupation; or have direct or indirect interests therein; or who are employees of the same employer; or who are members of the same or an affiliated organization of employers or employees; whether such dispute is (1) between one or more employers or associations of employers and one or more employees or associations of employees; (2) between one or more employers or associations of em-

ployers and one or more employers or associations of employers; or (3) between one or more employees or associations of employees and one or more employees or associations of employees; or when the case involves any conflicting or competing interests in a 'labor dispute' (as defined in this section) of 'persons participating or interested' therein (as defined in this section)."

Citing these provisions the petitioners insist that their dispute with Group Health was as to terms and conditions of employment of the doctors employed by Group Health since the District Medical Society objected to its members, or other doctors, taking employment under Group Health on the terms offered by that corporation.

They assert that section 20 of the Clayton Act, as expanded by section 13 of the Norris-La Guardia Act, includes all persons and associations involved in a dispute over terms and conditions of employment who are engaged in the same industry, trade, craft, or occupation, or have direct or indirect interests within. And they rely upon our decisions in *New Negro Alliance vs. Sanitary Grocery Co.*, 303 U. S. 552, and *Drivers Union vs. Lake Valley Co.*, 311 U. S. 91 as bringing within the coverage of the acts a third party, even though that party be a corporation not in trade, and employers and employers' associations even though they be only indirectly interested in the controversy. They insist that as the petitioners and Group Health, its members and doctors, other doctors and the hospitals, were either directly or indirectly interested in a controversy which concerned the terms of employment of doctors by Group Health, the case falls within the exemption of the statutes and they cannot be held criminally liable for a violation of the Sherman Act.

CITES PETITIONERS' PURPOSE

It seems plain enough that the Clayton and Norris-La Guardia Acts were not intended to immunize such a dispute as is presented in this case. Nevertheless, it is not our province to define the purpose of Congress apart from what it has said in its enactments, and, if the petitioners' activities fall within the classes defined by the acts, we are bound to accord petitioners, especially in a criminal case, the benefit of the legislative provisions.

We think, however, that, upon analysis, it appears that petitioners' activities are not within the exemptions granted by the statutes. Although the government asserts the contrary, we shall assume that the doctors having contracts with Group Health were employees of that corporation. The petitioners did not represent present or prospective employees. Their purpose was to prevent anyone from taking employment under Group Health. They were interested in the terms and conditions of the employment only in the sense that they desired wholly to prevent Group Health from functioning by having any employees. Their objection was to its methods of doing business. Obviously there was no dispute between Group Health and the doctors it employed or might employ in which petitioners were either directly or indirectly interested.

In truth, the petitioners represented physicians who desired that they and all others should practice independently on a fee for service basis where whatever arrangement for payment each had was a matter that lay between him and his patient in each individual case of service or treatment. The petitioners were not an association of employees

in any proper sense of the term. They were an association of individual practitioners each exercising his calling as an independent unit. These independent physicians, and the two petitioning associations which represent them, were interested solely in preventing the operation of a business conducted in corporate form by Group Health.

In this aspect the case is very like *Columbia River Packers Association, Inc., vs. Hinton*, 315 U. S. 143. What was there decided requires a holding that the petitioners' activities were not exempted by the Clayton and the Norris-La Guardia Acts from the operation of the Sherman Act.

The judgments are affirmed.

Mr. Justice Murphy and Mr. Justice Jackson took no part in the consideration of the decision of this case.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Virginia Lee Nelson, Bruce-ton, Tenn., and Dr. Garrett B. Ackerman, Columbus; Miss Lois McCollum and Dr. Joseph Brann, Cincinnati; Miss Betty Jane Toland and 1st Lt. George H. Curtis, Cleveland; Miss Catherine Pauline Hughes, Hamilton, and Dr. E. D. Davis, Cincinnati; Miss Martha Jacoby, Middletown, and Dr. James S. Eley, Dayton; Miss Dorothy Ann Mulligan and Dr. Frank R. Hanrahan, Jr., Cleveland Heights; Miss Helen Shuster, Pittsburgh, and 1st Lt. Elmer McGraw, Toronto.

Red Cross Names Medical Director

Dr. John F. Busch has been appointed Director of Medical and Health Service for the Eastern Area of the American Red Cross, with headquarters in Alexandria, Va. Ohio is included in this area, and Dr. Busch will be available for discussion and promotion of medical-Red Cross relationships in the state. Following general practice in Spartansburg, S. C., Dr. Busch engaged in tuberculosis control work and, prior to his Red Cross appointment, was affiliated with the Georgia State Department of Health in the Division of Tuberculosis Control.

Middleburg—Dr. L. E. Traul was re-elected health commissioner of Logan County.

Marysville—Dr. F. C. Callaway is Union County chairman for the 10th annual fund raising drive for the fight against infantile paralysis.

Portsmouth—New officers of the staff of General Hospital are: Dr. C. G. Braunlin, president; Dr. A. P. Hunt, vice-president; and Dr. J. W. Daehler, secretary-treasurer.

Xenia—Uses of the sulfa drugs were explained by Dr. R. R. McClellan at a meeting of the Rotary Club.

McConnellsville—Dr. C. E. Northrup has been reappointed health commissioner of Morgan County.

College of Surgeons "War Session" In Indianapolis on March 5

New developments in military and civilian medical and hospital service will be brought to members of the medical profession in Ohio, Indiana, and Kentucky at the all-day "War Session" held under sponsorship of the American College of Surgeons Friday, March 5, at the Hotel Claypool, Indianapolis. This will be one of 20 such meetings sponsored by the College and held throughout the United States during March.

The program of the War Session will begin at 9 a.m. and last through 10 p.m., including luncheon and dinner conferences. Ranking officials of the Army Medical Department, the Navy Bureau of Medicine and Surgery, the Procurement and Assignment Service, and the United States Public Health Service will be present to discuss current activities of their respective services.

Topics relating to military medicine will include care of the ill and injured in combat zones, care of evacuated personnel, treatment of such new entities as crush and blast injuries, treatment of burns and shock, military anesthesia, psychoneuroses of war, and similar pertinent subjects. Among the problems of civilian medical care in wartime up for discussion will be responsibilities of individual physicians and hospitals, personnel problems of hospitals, organization of emergency medical services, maintaining adequate supplies, maintenance of high standards in medical and nursing education, medical and surgical aspects of chemical warfare, endemic and epidemic diseases, and industrial health.

E. N. T. Refresher Course Planned

A didactic and clinical refresher course in laryngology, rhinology and otology will be held at the University of Illinois College of Medicine March 22 through 27. Fee for the course is \$50, and registration is limited. Inquiries may be addressed to: Department of Oto-laryngology, University of Illinois College of Medicine, 1853 W. Polk St., Chicago, Ill.

Ashland—"Medical Progress", was the subject discussed by Dr. H. Wayne Smith at a meeting of the Rotary Club.

Marengo—Dr. W. E. DeVol told of his experiences in China, at a meeting of the Ashley American Legion. Dr. DeVol was on the staff of Nanking hospital for 18 months.

Oxford—Dr. J. D. Schonwald spoke on "Health in War Times", at a meeting of the McGuffey Parent Teacher Association.

New Straitsville—Dr. Harold F. Minshall is the new health commissioner of Perry County.

In Memoriam

Hiram Franklin Bigony, M.D., Millersport; Medical College of Virginia, Richmond, 1905; aged 69; former member of the Ohio State Medical Association and the American Medical Association; died Feb. 13. Dr. Bigony died one day before the death of his brother, J. Henry Bigony, 70, Dayton, and double funeral services were held for them. He had practiced medicine for 37 years, most of that time in Licking County at Kirkersville and Millersport. Survivors include his widow, one daughter, a son, and two brothers.

Clarence Roy Blosser, M.D., Dunkirk; Ohio State University College of Medicine, 1912; aged 59; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 17. A practicing physician in Dunkirk for 30 years, Dr. Blosser was prominent in community affairs and was a member of the Hardin County Board of Health. He was a member of the Elks' Lodge at Kenton and the Masonic Lodge at Dunkirk. His survivors are his wife, his step-mother, two brothers, and two sisters.

Julius J. Buel, M.D., Cleveland; University of Bern, Switzerland, Medical Faculty, 1885; aged 83; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 18. A native of Switzerland, Dr. Buel maintained a clinic for eye diseases in Paris, France, for several years before coming to America in 1891. He began practice in Cleveland in 1892 and retired only three years ago. He was a charter member of the staff of Lutheran Hospital, there, and served on the staff of St. John's hospital throughout the period of his practice. A daughter is his only survivor.

James Adam Carnes, M.D., Massillon; University of Pennsylvania School of Medicine, Philadelphia, 1907; aged 58; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Feb. 13. Since 1916 Dr. Carnes had been surgeon for the Central Alloy District of the Republic Steel Corporation. A member of the American College of Surgeons, he had done postgraduate work in orthopedic surgery in London and Vienna. He was a 32nd Degree Mason and a lifelong resident of Massillon. Survivors include his wife, two daughters and a son, Lt. James A. Carnes of the Army Medical Corps, stationed at New Orleans, La.

Adolph Eisenheimer, M.D., Akron; University of Wurzburg, Bavaria, Medical Faculty, 1912; aged 56; died Feb. 15. Dr. Eisenheimer came to the United States from Germany in 1938. He is survived by his widow and two daughters.

KILLED IN ACTION

Lt. Comdr. Malcolm L. Pratt, Bellefontaine; Jefferson Medical College, Philadelphia, 1914; aged 51; member of the Ohio State Medical Association and Fellow of the American Medical Association; was killed by enemy action during a landing operation in the Solomon Islands on the night of Aug. 12, 1942. Lt. Comdr. Pratt, Bellefontaine surgeon in civilian practice, was surgeon for a U. S. Marine detachment that was among the first of the American forces to invade the Solomons. Immediately after the engagement in which he was killed, he was reported as "missing in action" and recently official notification of his death has been given by the Navy Department. He was a Marine Corps officer in World War I, and his son, First Lt. John L. Pratt, also a Marine Corps officer, recently was killed in action while on overseas duty. Dr. Pratt was a diplomate of the American Board of Surgery. He is survived by his widow, three daughters, and his brother, Dr. Robert B. Pratt, also of Bellefontaine.

Lt. (j.g.) Aaron S. Michelson, Cincinnati; University of Cincinnati College of Medicine, 1941; aged 27; is officially reported missing and undoubtedly was killed in action aboard the destroyer USS Laffey in the Solomon Islands area on Nov. 13. According to press reports, Lt. Michelson, medical officer of the Laffey, was trapped below deck while helping remove wounded sailors from the doomed vessel. The Laffey was one of the seven United States destroyers lost in this engagement at Guadalcanal. Lt. Michelson had been aboard the Laffey since completion of his indoctrination course in July, 1942. Before entering the Navy last May, he had served as Chief Resident of Cincinnati's Jewish Hospital and assistant clinician in general medicine at Cincinnati General Hospital. He was a member of Phi Delta Epsilon fraternity. He is survived by his widow, a sister, and a half-brother, Rabbi Michael Aaronson, wounded veteran of World War I and present National Chaplain of the Veterans of Foreign Wars.

Lee Hollister Ferguson, M.D., Cleveland; Columbia University College of Physicians and Surgeons, New York, 1917; aged 58; member of the Ohio State Medical Association and Fellow of

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the American Medical Association; died Jan. 27. Nationally prominent as an authority in the field of hygiene and preventive medicine, Dr. Ferguson had been director of Health Service at Western Reserve University for more than a decade. He is credited with having organized the service and built it to its present high standard of efficiency. He was particularly interested in eradication of tuberculosis and devoted much effort to promoting early diagnosis of this disease among young people. After graduating from high school in Jackson, Mich., Dr. Ferguson worked for several railroads, earning enough money to enter Ohio Wesleyan University. In his sophomore year he contracted poliomyelitis, and his recovery from that disease interested him in medicine to such an extent that he determined to become a physician. After his graduation from medical school he served his internship at New York Presbyterian Hospital, and later went to Boston for research. Prior to his affiliation with Western Reserve University, he served as assistant supervisor of health education in the Cleveland public schools. Besides holding membership in local and national anti-tuberculosis and public health organizations, he was active in the affairs of the Cleveland Child Health Association and the Cleveland Family Health Association and served as a trustee of Baldwin Wallace College, Berea. He is survived by his widow, six children, and two brothers.

John Louis Formorin, M.D., Marathon; Medical College of Ohio, Cincinnati, 1888; aged 88; former member of the Ohio State Medical Association and the American Medical Association; died Jan. 28. Clermont county's oldest physician, Dr. Formorin was truly a horse-and-buggy doctor in the early years of his practice. In fact, he first made his calls on horseback throughout Clermont County and in parts of Brown County, and later he visited patients in a mud-spattered buckboard. He first studied medicine under a physician in neighboring Perintown and later received a formal medical education in Cincinnati. He practiced actively from the day of his graduation until his eyesight failed shortly before his death. Dr. Formorin's extra-professional interests were gardening and reading. He is survived by his widow and two sons.

Charles Freeman, M.D., Steubenville; University of Georgia School of Medicine, Augusta, 1899; aged 68; former member of the Ohio State Medical Association and the American Medical Association; died Jan. 26. A native of Phillipsburg, Pa., Dr. Freeman lived and practiced in Steubenville since 1900. He was a member of St. Paul's church there and was affiliated with the Elks, Schwaben, and Maccabee lodges. His widow and a brother survive.

Henry K. Harker, M.D., Dayton; Pulte Medical College, Cincinnati, 1878; aged 90; died Jan. 16. He is survived by his widow.

Frank A. Hartley, M.D., Springfield; Starling Medical College, Columbus, 1898; aged 73; member of the Ohio State Medical Association and the American Medical Association; died Jan. 18. Dr. Hartley practiced for a number of years in Springfield in association with his nephew, Dr. Starling Yinger, before the latter was commissioned an Army medical officer. Previously he had practiced in Rosewood. He was a member of the American Academy of Ophthalmology and Oto-Laryngology and was a member emeritus of the Springfield City Hospital. He is survived by his widow and two sisters.

Wenceslaus Frank Hribal, M.D., Everett; University of Wooster Medical Department, Cleveland, 1900; aged 67; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 17. A native of Bohemia, Dr. Hribal came to the United States as a child. Before studying medicine he attended the Cleveland School of Pharmacy. He practiced in Cleveland for 42 years before retiring to suburban Everett, Summit County, a year ago. Survivors include his widow and two daughters.

Frank Emil Klauser, M.D., Toledo; Detroit Medical College, 1879; aged 87; died Jan. 17. A native of Toledo, Dr. Klauser practiced there for more than 50 years. He is survived by two daughters, a son, and several grandchildren and great-grandchildren.

Albert H. Lanzer, M.D., Cleveland; University of Wooster Medical Department, Cleveland, 1905; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 16. A native of Walnut Creek, Ohio, he taught school there before studying medicine. For 37 years he practiced in the vicinity of his home in Cleveland's East Side. He is survived by his wife, three brothers, and two sisters.

Washington E. Linden, M.D., Cleveland; Western Reserve University School of Medicine, 1883; aged 85; died Jan. 8. Before studying medicine Dr. Linden, who was a graduate of the Philadelphia College of Pharmacy, operated a drug store. After his graduation from Western Reserve, he studied in clinics in Berlin and Vienna and then returned to Cleveland. He was a horse-and-buggy doctor, practicing general medicine among the residents of the then rural area that is now southwest Cleveland. He was active in the affairs of Brooklyn Village and first member of the Brooklyn School Board. Surviving are his



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widow, two sons, one of whom is Dr. J. E. Linden, of Cleveland, three sisters, and one grandchild.

Albert J. Marks, M.D., Toledo; Physio-Medical Institute, Cincinnati, 1882; aged 100; died Jan. 21. Dr. Marks had practiced medicine in Toledo for more than 50 years prior to his retirement at the age of 92, and before practicing in Toledo he had been a physician in Millbury, Wood County. A veteran of the Civil War, he was the last surviving member of Ford Post, G.A.R., and is believed to have been the oldest Mason in the United States. Before studying medicine, he worked for a number of years as collector of fees on the Miami and Erie Canal and the Ohio Canal. His first medical studies were conducted under the preceptorship of Dr. L. L. Loomis, Scotch Ridge. For a while he was professor of materia medica at the Physio-Medical College of Chicago, and among his students was his wife, the late Dr. Mary Ann Marks. His only survivor is his daughter, Dr. Maude Marks, also of Toledo.

Henry Jacob Pool, M.D., Port Clinton; University of Wooster Medical Department, 1902; aged 68; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Feb. 17. Dr. Pool began to practice in Port Clinton in 1902, and four years later he established Pool Hospital there. Active in medical organization for many years, he served several terms as delegate from the Ottawa County Medical Society to the State Association's House of Delegates. He was a Fellow of the American College of Surgeons and a member of the Radiological Society of North America. Survivors include his widow, three daughters, a sister, and two brothers.

John A. Roach, M.D., Alliance; Western Reserve University School of Medicine Cleveland, 1884; aged 85; died Jan. 8. Dr. Roach had practiced medicine in Alliance for 56 years in which time, according to his records, he delivered more than 3200 babies. He continued caring for patients until his fatal illness a few weeks before he died.

Linn L. Roebuck, M.D., Marion; Starling Medical College, Columbus, 1894; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died Jan. 14. Dr. Roebuck had practiced in Union and Marion Counties for 48 years, beginning his career in Richwood and moving to Marion in 1920. During World War I, he helped combat the influenza epidemic as a surgeon in the United States Public Health Service. A 32nd Degree Mason, he was a life member of Scioto Consistory, Scottish Rite, Columbus, and was active in several other

branches of Masonry and the Shrine. He was also a member of the Sons of the American Revolution and belonged to the First Presbyterian Church of Marion. Dr. Roebuck was a native of Fayette County. He is survived by his widow, three sons, two brothers, and several grandchildren.

Albert Schwartz, M.D., Cincinnati; Eclectic Medical College, Cincinnati, 1916; aged 57; member of the Ohio State Medical Association and the American Medical Association; died Dec. 19. Before entering medical college, Dr. Schwartz had graduated from the Cincinnati Dental College. He practiced in Dayton for 26 years before returning to Cincinnati. He is survived by his widow, one son, and a brother.

Robert Gibson Steele, M.D., Melmore; Western Reserve University School of Medicine, Cleveland, 1883; aged 86; former member of the Ohio State Medical Association and the American Medical Association; died Jan. 15. Dr. Steele's death brought to a close a career of nearly 60 years of medicine practiced in his home community. He was Seneca County's oldest practicing physician. He attended Heidelberg and Oberlin Colleges before studying medicine. Active in civic and religious affairs, he was a 50-year member of the Tiffin Masonic Lodge and the Odd Fellows Lodge at Melmore. He belonged to the First Presbyterian Church, Tiffin. Surviving him are a sister and one foster daughter.

John Charles Tritch, M.D., Findlay; Cleveland University of Medicine and Surgery, 1877; aged 86; member of the Ohio State Medical Association and the American Medical Association; died Jan. 24. The oldest practicing physician in Findlay, Dr. Tritch's entire professional career was spent there. He was credited with being chiefly instrumental in the establishment of Findlay Hospital and was its first chief of staff. Dr. Tritch was a former president of the Hancock County Medical Society. In 1916 he was elected a Fellow of the American College of Surgeons, one of the first physicians in his section of Ohio to win that distinction. Several times during his career he took postgraduate study in surgery in New York and London. A charter member of the Findlay Elks Lodge, he was its first Exalted Ruler. He was a 50-year member of the Findlay Odd Fellows Lodge and also belonged to the Masonic order. In 1896 he earned the degree of Master of Arts from Findlay College. He served a term as Hancock County coroner and was a member of the Findlay Board of Education for six years. He is survived by two daughters and several grandchildren.



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Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D.,
CINCINNATI)

BUTLER

Dr. Garret J. Boone, Butler County coroner, discussed the subject, "Postmortem Diagnoses" at the regular meeting of the Butler County Medical Society at Middletown Hospital, Jan. 28—Mabel Gardner, M.D., secretary.

CLINTON

Dr. W. L. Wead, Sabina, and Dr. L. H. Fullerton, New Vienna, read papers on "Respiratory Infections" at the regular monthly luncheon meeting of the Clinton County Medical Society at the General Denver Hotel, Wilmington, Feb. 2.—R. W. DeCrow, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs in February:

Feb. 2—A program devoted to cancer control under joint auspices of the Academy and the Cancer Control Council of Cincinnati. Essayists and their subjects were: Dr. Floyd P. Allen, Cincinnati, "Cancer in Cincinnati;" Dr. William M. German, Cincinnati, "Common Errors in the Diagnosis of Cancer;" and Dr. Max M. Zininger, Cincinnati, "The Diagnosis and Surgical Treatment of Cancer of the Rectum."

Feb. 16—"Certain Aspects of War Wounds" by Dr. Fraser Gurd, professor of surgery, McGill University Faculty of Medicine, Montreal, Canada.—Bulletin.

HIGHLAND

Mrs. W. B. Roads and Mrs. W. M. Hoyt, both of Hillsboro, were named delegate and alternate, respectively, to the state meeting at the regular business meeting of the Woman's Auxiliary to the Highland County Medical Society held Feb. 10 in Hillsboro.—Mrs. J. C. Bohl, secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MONTGOMERY

Six brief reports on medical and hospital problems were presented by Dayton men at the regular meeting of the Montgomery County Medical Society in the Miami Valley Hospital Nurses Home, Dayton, Feb. 5. Speakers and their topics were: Mr. S. W. Rice, Miami Valley Hospital superintendent, "Problems of a Hospital Administrator;" Dr. L. G. Kauffman, "Advances in The Treatment of Carcinoma of the Prostrate";

Dr. C. C. Payne, "Immunization Procedures in Children"; Dr. William S. Clark, "Trends in Physical Medicine"; Dr. James M. Shaffer, "Sympathetic Injection in Thrombo-Phlebitis"; and Dr. Harold F. Koppe, "Practical Endocrine Therapy."—Bulletin.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

AUGLAIZE

"Recent Trends in the Treatment of Fractures" was the subject of Dr. J. R. Tillotson, Lima, when he addressed the Auglaize County Medical Society at its regular meeting Feb. 11 at the Courthouse in Wapakoneta.—Charles C. Berlin, M.D., secretary.

WYANDOT

Officers of the Wyandot County Medical Society for 1943 are: Dr. H. K. Van Buren, Carey, president; Dr. S. R. Bame, Carey, vice president; Dr. F. M. Kenan, Upper Sandusky, secretary-treasurer; Dr. J. Craig Bowman, Upper Sandusky, legislative committee chairman and delegate; and Dr. R. L. Garster, Upper Sandusky, war participation committee chairman and alternate—R. L. Garster, M.D., correspondent.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

Officers of the Toledo Academy of Medicine for 1943 are: Dr. A. A. Brindley, president; Dr. Paul M. Holmes, vice president; Dr. R. W. Kuebbeler, secretary; Dr. W. W. Alderdyce, treasurer; Dr. F. L. Eyestone, legislative committee chairman; Dr. Dale Wilson, war participation committee chairman; Dr. L. D. Miller, Dr. F. N. Nagel, Dr. R. C. Young, and Dr. C. E. Hufford, delegates; and Dr. Leonard Nippe, Dr. Harlan Howe, Dr. H. K. Beckwith, and Dr. Howard Holmes, alternates; all of Toledo.—George W. Cooley, executive secretary.

SANDUSKY

Officers of the Sandusky County Medical Society for 1943 are: Dr. J. C. Boyce, Fremont, president; Dr. J. L. Curtin, Fremont, vice president; Dr. R. C. Fox, Green Springs, secretary-treasurer; Dr. C. I. Kuntz, Fremont, legislative committee chairman; Dr. B. O. Kreilick, Fremont, war participation committee chairman; Dr. C. A. Kingman, Bellevue, delegate; and Dr. L. E. Drossel, Woodville, alternate.—J. W. Agnew, M.D., retiring president.



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Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs in February:

Feb. 5—Clinical and Pathological Section, Lecture Room, St. Alexis Hospital Nurses' Home. Speakers and their subjects were: Dr. Harry V. Paryzek, "So-Called 'Intestinal Flu';" Dr. E. A. Mastics, "Carcinoma of the Ilio-Cecal Valve;" Dr. Fred Dixon, "Scleroma;" Dr. J. N. Wychgel, "Tuberculous Bursitis;" Dr. B. J. Walzak, "Hemangioma of the Kidney;" Dr. J. L. Work, "Primary Tuberculosis of the Intestine."

Feb. 12—Joint meeting of the Experimental Medicine Section and the Cleveland Section of the Society for Experimental Biology and Medicine. Speakers and their subjects were: Dr. C. J. Wiggers, K. A. Huizenga, and B. L. Brofman, "The Ineffectiveness of Adrenal Cortical Preparations in Standardized Hemorrhagic Shock;" Dr. H. D. Green and B. L. Brofman, "Studies on Prolonged Anoxia; its Role in the Production of Shock;" Dr. M. R. Read, Dr. H. Bavor, J. P. Quigley, Ph.D., and B. L. Brofman, "The Effect of Somatic and Visceral Reflexes on the Pyloric Sphincter and on Gastric Evacuation;" and Dr. Marion Black and W. W. Gruelich, Ph.D., "Basal Body Temperature and Ovulation in Women."

Feb. 19—Regular Academy Meeting in the Medical Library Auditorium. Dr. Fuller Albright, associate professor of medicine at Harvard Medical School, spoke on "Gonadal Hormones—Newer Thoughts on an Old Subject." Dr. E. P. McCullagh, Cleveland, discussed Dr. Albright's paper.—Bulletin.

LAKE

At the regular meeting of the Lake County Medical Society, held Feb. 9 at Lake County Memorial Hospital, Painesville, Dr. C. R. Hughes, Cleveland, discussed the hospital's X-ray problems.—E. S. Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Speaker at the regular meeting of the Columbiana County Medical Society, held in Lisbon, Jan. 12, was Dr. F. W. Trader, Columbiana, who told of his experience in the hospital of the Curtiss-Wright Airplane plant in Buffalo when an airplane crashed through the roof of the plant killing a number of workers. He particularly emphasized the emergency treatment for shock used at that time.—News clipping.

MAHONING

Dr. David E. Jones, professor of physical medicine at the Ohio State University College of Medicine, spoke on "Physical Medicine in General Practice" at the regular meeting of the Mahoning County Medical Society held at the Youngstown Club Feb. 16.—Bulletin.

Members of the Woman's Auxiliary to the Mahoning County Medical Society have undertaken a surgical dressing project for the Red Cross under the chairmanship of Mrs. Brack M. Bowman, Youngstown.—News clipping.

PORTAGE

Members of the Portage County Medical Society attended the course on medical aspects of gas warfare in Akron, Feb. 17, in place of holding their regular meeting.—E. J. Widdecombe, M.D., secretary

SUMMIT

A team of teachers from Western Reserve University School of Medicine presented a concentrated six-hour course in "Medical Aspects of Chemical Warfare" at the Akron City Hospital Nurses' Home, Feb. 17, in place of the regular meeting of the Summit County Medical Society. This was one of a series of such meetings sponsored by the Office of Civilian Defense, the Ohio Defense Council, the State Department of Health, and the Ohio State Medical Association. Speakers were: Dr. Joseph Seifter, assistant professor of pharmacology; Dr. Harold D. Green, associate

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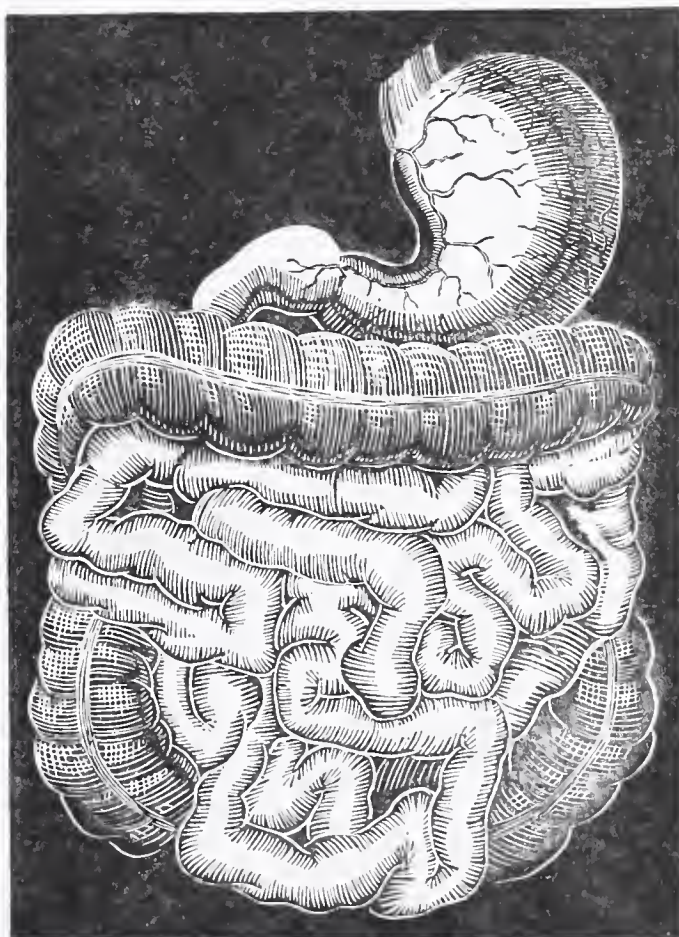
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professor of physiology; Dr. W. H. Pritchard, instructor in medicine; Dr. John A. Gammell, assistant clinical professor of dermatology; Dr. J. H. Holloway, assistant clinical professor of surgery; and Dr. R. M. Stecher, assistant clinical professor of medicine.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

TUSCARAWAS

The Tuscarawas County Medical Society and its Woman's Auxiliary held a joint dinner meeting on Jan. 14 at the home of Dr. and Mrs. D. H. Downey, Highland Farm, near Dover. The two groups met separately for business sessions following the dinner. New officers of the Auxiliary, elected at that meeting, are: Mrs. W. W. H. Curtiss, Dennison, president; Mrs. D. H. Downey, president-elect; Mrs. David H. Allen, Dover, vice president; and Mrs. R. J. Foster, New Philadelphia, secretary-treasurer.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MUSKINGUM

The Blue Cross hospitalization plan was discussed at the regular meeting of the Muskingum County Academy of Medicine at the University Club, Zanesville, on Feb. 3.—News clipping.

PERRY

Officers of the Perry County Medical Society for 1943 are: Dr. William D. Porterfield, Junction City, president; Dr. Robert Miller, Hemlock, vice president; Dr. Harold D. Minshull, New Lexington, secretary-treasurer; Dr. C. B. McDougal, New Lexington, legislative committee chairman; Dr. James Miller, Corning, delegate and war participation committee chairman; and Dr. E. D. Allen, Crooksville, alternate.—W. D. Porterfield, M.D., president.

WASHINGTON

Regular dinner meeting of the Auxiliary to the Washington County Medical Society was held Jan. 13 at the Betsey Mills Club, Marietta. Following a business session, Mrs. A. F. Weiss read an article by Dr. Eugene Underhill, Jr., on the subject of "Health Problems in Defense Work" after which there was a discussion of that subject.—News clipping.

Ninth District

(COUNCILOR: GILBERT MICKLETHWAITE, M.D., PORTSMOUTH)

HOCKING

Officers of the Hocking County Medical Society for 1943 are: J. S. Cherrington, president; Dr. H. M. Boocks, vice president; Dr. M. H. Cherring-

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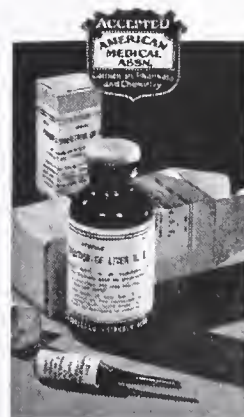
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ton, secretary-treasurer; Dr. J. S. Cherrington, legislative committee chairman; Dr. Boocks, war participation committee chairman; Dr. M. H. Cherrington, delegate; and Dr. H. G. Southard, alternate; all of Logan.—M. H. Cherrington, M.D., secretary.

MEIGS

Officers of the Meigs County Medical Society for 1943 are: Dr. R. E. Boice, Middleport, president; Dr. Roger Daniel, Middleport, vice president; Dr. F. M. Cluff, Middleport, secretary-treasurer; Dr. John Philson, Racine, legislative committee chairman; Dr. W. S. Oliver, Middleport, war participation committee chairman; and Dr. P. A. Jividen, Rutland, delegate.—F. M. Cluff, M.D., secretary.

Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs at the Columbus Art Gallery in February:

Feb. 1—"Diagnosis and Treatment of Disorders of the Feet" by Dr. Donald Bowers, Columbus.

Feb. 15—"The Michigan Medical Service Plan" by Dr. Robert E. S. Young, Columbus—Bulletin.

At the regular meeting of the Woman's Auxiliary to the Columbus Academy of Medicine, held Jan. 18 at the Columbus Art Gallery, Dr. Amalie Nelson, Columbus, discussed "Women in War Time" and after her paper introduced representatives of the WAACS and the WAVES, who described their respective services.—News clipping.

ROSS

Mrs. Adolf Wolff gave a talk on "Germany prior to 1933" at the regular meeting of the Woman's Auxiliary to the Ross County Medical Society held Feb. 11 at the home of Mrs. R. W. Holmes, Chillicothe. Mrs. George W. Cooper, Clarksburg, and Mrs. W. E. Kramer, Chillicothe, were appointed delegate and alternate, respectively, to the state meeting.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

Capt. John Riebel, Ashland physician in the Army Medical Corps, who was home on leave, detailed his experiences in England and North Africa at the dinner meeting of the Ashland County Medical Society, Feb. 12, at Samaritan Hospital, Ashland. The society members were guests of the Hospital.—L. H. Martin, M.D., secretary.

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ERIE

All 1942 officers of the Erie County Medical Society were re-elected for 1943. They are: Dr. Ross M. Knoble, president; Dr. W. F. Burger, vice president; Dr. E. J. Meckstroth, secretary-treasurer; all of Sandusky.—E. J. Meckstroth, M.D., secretary.

LORAIN

Speakers at the regular dinner meeting of the Lorain County Medical Society, held Feb. 9 at the Elks Restaurant, Elyria, were Dr. S. F. Basinger, Elyria, and Dr. Russell M. Arnold, Avon Lake. Dr. Basinger discussed obstetrics and Dr. Arnold discussed the sulfonamides—L. H. Trufant, M.D., secretary.

RICHLAND

Capt. Paul A. Blackstone, medical officer of the Army's Lockbourne Air Base, near Columbus, talked of medicine in the Air Corps at the regular meeting of the Richland County Medical Society at Mansfield General Hospital, Jan. 21.—News clipping.

"New Developments in Emergency Surgery" were discussed by Dr. Edward Judd, Cleveland, at the regular meeting of the Richland County Medical Society held Feb. 18 at Mansfield General Hospital.—John F. McHugh, M.D., secretary.

Crippled Children Seal Sale

The 10th annual sale of Easter Seals for crippled children, sponsored by the National Society for Crippled Children and its affiliated organizations, will be conducted this year from March 26 to April 25. The seals will be for sale in sheets of 100 at \$1.00 per sheet. Money raised in this way is used to further the educational and preventive program of the society, as well as for certain measures of correction and rehabilitation.

A gift of \$3,000 a year for a period of two years by Mrs. Martha S. Stern in memory of her husband, the late Max Stern, for conducting a special study of rheumatic heart disease, has been announced by the Cincinnati Heart Council.

* * *

Extensive medical facilities for its employees are provided in a health program recently inaugurated by the U.S. Census Bureau in its new building at Suitland, Md., with an officer of the U.S. Public Health Service in charge. Pre-placement physical examinations will be made and illnesses or injuries that develop during the day's work will be treated. Advice will be given to employees, but actual treatment will be left to the family physician, according to the *Washington Star*.

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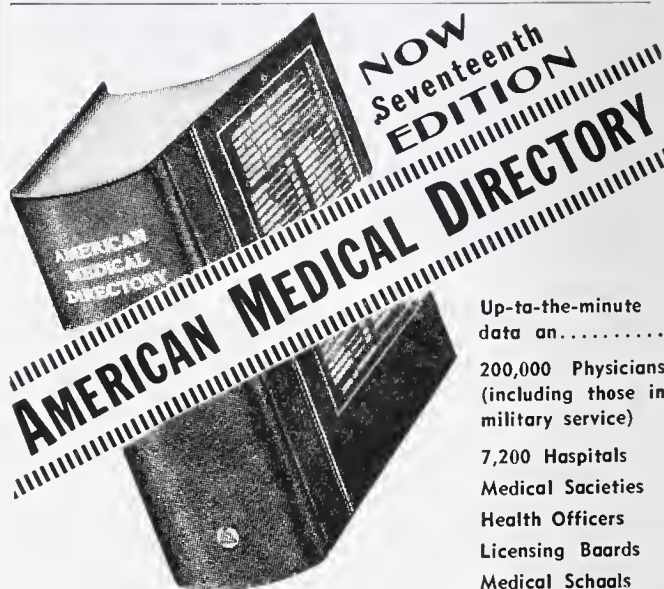
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The Physician's Bookshelf

Weight Control Through Proper Diet by Lewis R. Wolberg, M.D. (49c, *World Publishing Company, Cleveland, Ohio*) is a report of a book which in more expensive editions was a success, and yet that was not so long ago. This edition is therefore a bargain. I might add it is a good book to have on your waiting room table or to loan to patients because its loss would be insignificant.

The Time of My Life, A Frontier Doctor in Alaska, by Harry Carlos De Vigne, M.D. (\$3.00, *J. B. Lippincott Company, Philadelphia*) is the story of the adventures of an orphaned Cuban lad from a newsboy on the Bowery to the foster son of an Iowa farmer, protege of a brilliant but disreputable physician, sailor of fortune on a freighter filibustering arms to Cuba at the outbreak of the Spanish-American War, medical student in Texas, California and Oregon, a busy general practitioner and ultimately Health Commissioner of the Territory of Alaska, a tremendous success story in these days when our minds turn toward Alaska. A timely bit of information is acquired in its reading.

Traumatic Surgery of the Jaws including first hand treatment by H. Thomas, D.M.D. (\$5.00, *C. V. Mosby Co., St. Louis*) is a timely presentation of material to assist the dentist in his first aid work. It is also a text for students and also gives the oral surgeon new procedures for the treatment of unusual cases. In war as well as in peace time this is a very valuable book.

How To Be Fit by Robert Kiphuth (\$2.00, *Yale University Press, New Haven, Connecticut*) is by the Director of the Yale Gymnasium, the

well known coach of Yale's swimming teams. The emphasis is upon full though not violent exercises and has a timely appearance for all of us know that as we pass middle life exercise becomes a matter of keen judgment; most people do themselves more harm than good and yet we know that if bodily functions are to be performed well there must be a reasonably good tone on the muscles of the body.

Good Nutrition For Everybody by L. Jean Bogert (\$1.50, *The University of Chicago Press, Chicago, Ill.*) is a translation into the language of the laymen of the indispensable working effects of nutrition. It is a mighty handy book to have in your loan collection to let the patient have who wants more information than you have time to give.

Castor Oil and Quinine, Once a Doctor Always a Doctor, by George Wonson Vandegrift, M.D. (\$3.00, *E. P. Dutton & Co., Inc., New York*) is a portrait of an eccentric, masterful and lovable Corner Doctor to New York's old Seventh Ward in the days of our childhood. It is delightful reading, warm with humanity and humor. It is Dr. Vandegrift's biography of his father. This book furnishes excellent entertainment.

The Hormones in Human Reproduction by George W. Corner (2.75, *Princeton University Press*) is an extension of the Vanuxen Lectures given by the author in Princeton in February, 1942, and is the first comprehensive account of the nature and function of hormones in the processes of sex and reproduction. The author is known to most of us for his sensible advice on the matters of sex to the adolescent. Not only

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is he a clear and forceful writer but this happens to be a field in which he is an authority. This is an excellent book for all who may be interested.

How to Teach Nutrition to Children by Mary Pfaffmann and Frances Stern (\$2.00, *M. Barrows and Company, Inc., New York*) presents the subject in the light of the experience of these two workers in the Boston Dispensary. It is excellently planned and well carried out to give children knowledge of nutrition as a part of their medical treatment.

A Doctor Carries On, Thomas A. Lambie, M.D., with foreword by Lowell Thomas (\$2.00, *Fleming H. Revell Co., 158 E. Fifth Ave., N.Y.C.*) is the story of the field director of the Sudan Interior Mission and friendly advisor, Halie Salassie of Ethiopia which makes it doubly interesting reading. It is a good story at any time, but it gives in this edition a good picture of that part of Africa.

Youth Faces Maturity Health Problems by Brownell, Williams & Hughes (*American Book Company*) is a pamphlet to be used with the American Book Company's higher books on health although it makes a pretty good little catechism itself on the question of sex as it affects the adolescent.

Notes on Air Raid Wardens Concerning Civilian Morale and Panic by George S. Goldman, M.D., distributed by the New York City Committee on Mental Hygiene, 105 E. 22nd St., New York City, gives interesting instructions on the prevention of group panic well adapted to the purposes for which it was written.

Morale in War Time (10c, prepared by the New York City Committee on Mental Hygiene, 105 E. 22nd St., New York City) is an outline for Defense Speakers on the role of fear and its antidotes. This is another excellent pamphlet for the purpose for which it is intended.

Balanced Diets and Balanced Personalities by Nina Ridenour, Ph.D. and Edith Williams, Ph.D. (10c, distributed by the New York City Committee on Mental Hygiene, 105 E. 22nd St., New York City) is an interesting dissertation on appetite as it affects emotions, as it is affected by emotions and as nutrition influences the emotions.

Making America Strong (published by the Pennsylvania State College) is an outline of the study of nutrition in national fitness for use by community groups and organizations.

A Compilation of Vitamin Values of Foods in Relation to Processing and Other Variants by Lela E. Booher, Eva R. Hartzler, and Elizabeth

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M. Hewston, Bureau of Home Economics, U.S. Department of Agriculture (25c, *Circular No. 638, U.S. Department of Agriculture, Superintendent of Documents, Washington, D. C., U.S.A.*) is a tabulation which is a necessary part of the equipment of every physician who is interested in nutrition.

The Dynamic State of Body Constituents by the late Rudolph Schoenheimer, M.D., (\$1.75 *Harvard University Press, Cambridge, Mass.*) is the final revision by Drs. David Rittenberg, Sarah Ratner and Hans T. Clarke of the draft of lectures prepared by the author shortly before his untimely death. The author in his characteristic fashion has correlated pertinent facts from many highly diversified branches of knowledge and brought them to bear on this subject, the dynamic state of body fats, proteins. It is a most stimulating book for the practitioner who needs to get the viewpoint that nothing he deals with is ever static.

After Effects of Brain Injuries in War by Kurt Goldstein, M.D. (\$4.00 *Grune & Stratton, New York, 1942*) is a new presentation in English of the author's studies during the last twenty years. It is most timely and will be more important as we get farther into the war.

Who Walk Alone by Perry Burgess (\$2.75, *Henry Holt & Company, New York City*) is a story of Ned Langford, young Middlewestern American who became a leper. As a good soldier he was exiled on a distant tropical island. This is the story of a man who faced the ultimate of human disaster and managed to wring from it a useful, undaunted life. It is being used to interest the American public, especially physicians, in leprosy, and is dedicated to an attempt to change our attitude toward disease. Every physician should give himself the reading experience which once gained from this book becomes a part of one.

Methods for the Study of Personality in Young Children, Edited by Eugene Lerner and Lois Barclay Murphy (\$2.00, *Society for Research in Child Development, National Research Council, Washington, D. C.*) presents the essential techniques in the study of the processes of personality formation in the family, from a psychosomatic perspective. It is one of the important series of monographs published by the Society.

Health Problems, How to Solve Them by Clifford L. Brownell, J. F. Williams and W. L. Hughes (\$1.50, *American Book Company, Cincinnati*) is well designed as a textbook and is useful in any type of health program, especially one dealing with the questions which young people ask. It does us older physicians good to read

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through a book like this which sort of consolidates our gains.

An American Surgeon Abroad by Richard A. Lenardo (\$2.50, *Froben Press, New York City*) is the fascinating narrative of an American surgeon abroad. His experiences will prove interesting as well as of exceptional value to the young physician who is interested in exploring fields of study in foreign countries after the restoration of peace. In the meantime it is good reading just as a travelogue.

Here Is Tomorrow, by Wallace J Campbell (10c, *Cooperative League, 167 W. 12th St., New York City*) presents the story of commodity, service and specialized consumers cooperatives. Physicians should be interested in the fact that there are now in operation 30 medical consumers cooperatives supported by 15,750 members and rendering services to the equivalent \$345,000. This book should be read by all physicians in order to drive home to them the necessity of immediate action, if we are to secure a producer's plan, for cooperatives we shall have.

The Surgery of Pancreatic Tumors by Alexander Brunschwig, M.D. (\$7.50, *C. V. Mosby, Company, St. Louis*) presents what is known about the most exciting field of surgery. Both benign and malignant tumors and their treatment is discussed in full. Most of the staff of the University of Chicago whose work has touched upon this subject have been enlisted in aiding its presentation. Dr. Alan O. Whipple of Columbia has made available to the author his unique series of records of personal and collected cases. It therefore becomes *the book* on the subject and should be in every medical library and in the interne library of every well organized hospital. It is a reference book. These tumors do not occur frequently but this book should always be handy.

The Rockefeller Foundation, Review for 1941, by Raymond B. Fosdick, is the annual report setting forth the expenditures amounting to \$9,013,964.

Family Nutrition, Published by the Philadelphia Child Health Society, financed by the Personal Finance Company, is the marvelous summary in 105 pages on what the homemaker should know about feeding the family. It is clearly written, well illustrated and persuasively phrased.

How to Use Honey, Recipes, Circular No. 528, *University of Illinois Extension Service*. In these days of sugar shortage provides a wealth of information about the uses of this natural sweetening as well as instructions for its care.

Vitamins for Health, Public Affairs Pamphlet No. 69, 10c, *Public Affairs Committee, Inc., 30 Rockefeller Plaza, New York City, N. Y.* Dis-



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Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

cusses vitamins pretty much in terms of dollars and cents. Since we in America are spending more than \$100,000,000 per year maybe we should give some consideration to cost. The best part of the book, however, is the part that shows you how easy it is to get off the beam in planning meals and not get your vitamins when you think you are. This is especially true when one has to eat out.

The Mead Johnson Collection of Pediatric Antiques is a catalog of the valuable historical collection that has evolved from the personal hobby of the late E. Mead Johnson, Jr. The catalog is sent gratis by the company. The collection now goes on annual pilgrimages to colleges, museums and libraries.

International Health Division, Annual Report, 1941 (*The Rockefeller Foundation, 49 W. 49th St., New York, N.Y., U.S.A.*) gives the interesting details of the work of the International Health Division, year of 1941 and its investigative work on yellow fever, influenza, typhus fever, malaria, syphilis, tuberculosis, mental hygiene and nutrition.

First Aid and Bandaging, a Handbook by Arthur D. Belilios, (\$1.75, *Williams and Wilkins Company, Baltimore*) is a handy complete 600-page pocket manual.

School Ventilation by the New York Commission on Ventilation (\$1.00, *Teachers' College, Columbia University, New York City*) is the final report which demolishes worn out theories about heating and ventilating and makes definite recommendations how to revise building legislation and practices to save needless expenditure of over two and one-half billion dollars per year. The facts set forth are those that every physician should know about and every school physician must know about.

Objectives of Consumers Cooperation, Murray D. Lincoln, (5c, *The Cooperative League, 167 W. 12th St., New York City, N.Y.*) is a plea for the movement as a stabilizing influence on private profit business. Physicians who will have to inform themselves about cooperatives after the war had better do it now.

Clinical Anesthesia by John S. Lundy, M.D. (\$9.00, *W. B. Saunders Company, Philadelphia*) presents most of the methods of anesthesia employed by the author. The book has eliminated theories and limited description of technique to necessary maneuvers. In its final draft the book has been modified to make it suitable for military purposes.

The Mind and Its Disorders by James N. Brawner (\$3.50, *The Walter W. Brown Publishing Company, Atlanta, Ga.*) expresses in simple

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1. J. Comparative Psychology, 31:1, 1941
2. American J. Public Health, 32:523, May, 1942

ELIXIR 'B-G-PHOS'

language description of the neuroses, psycho-neuroses, and psychoses. The book should be read by most of us because the author insists that psychiatry is but a branch of internal medicine and that somatic disorders are the most frequent etiological factors in mental disorders.

The Year Book of General Medicine, edited by George F. Dick, M.D., J. Burns Amberson, Jr., M.D., George R. Minot, M.D., William B. Castle, M.D., William D. Stroud, M.D., and George B. Eusterman, M.D., (\$3.00, *The Year Book Publishers, Inc., 304 S. Dearborn St., Chicago*) again crams into 850 pages the literature of a whole year. High standard have been maintained and the book is indispensable.

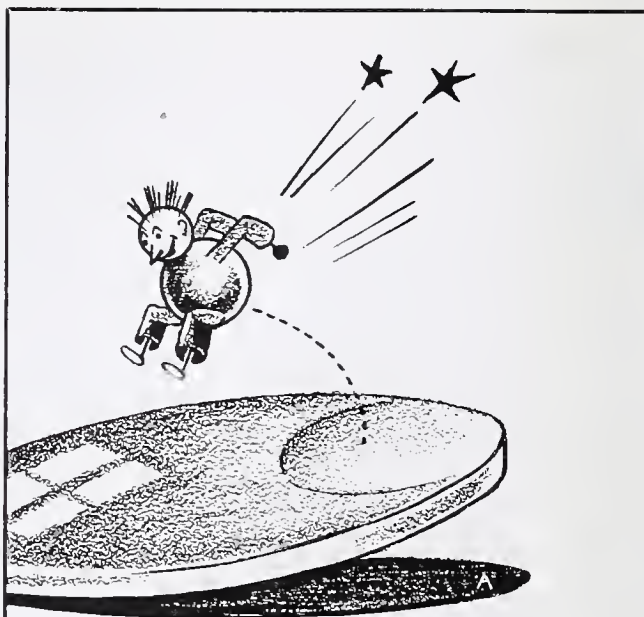
A Venture in Public Health Integration, Report of the 1941 Health Education Conference of the New York Academy of Medicine (\$1.00, *Columbia University Press, 1942*). Such a book with its descriptions of what can and what cannot be done by health officers, private physicians, public agencies and other "friends of mankind" should have a wide circulation and should stimulate our thinking as to just who is to do what for human health when the war is over.

The Man Miss Susie Loved by Augusta Tucker (\$2.75 *Harper & Brothers, New York*) takes Miss Susie Slagle, of the previous book by that name, back with some of the same characters to the days when Miss Susie herself and Hizer were both young and life stretched ahead as a golden adventure and the Johns Hopkins Hospital was but an idea in the mind of a hated old man. This presents a dramatic tale well told against this historical background.

Fundamentals of Psychiatry by Edward H. Strecker, M.D. (\$3.00, *J. B. Lippincott, Philadelphia*) is an attempt to bring together internal medicine and psychiatry, and the body of information included in the psychosomatic concept of medicine. It is therefore a most useful book to the medical student and practitioner alike. Its manner of presentation is sound, being based upon the author's long teaching experience.

Human Pathology by Howard T. Karsner, M.D. (\$10.00, *J. P. Lippincott, Philadelphia*) is the sixth edition of this standard text. Much revision has been made without increasing the size of the text. This edition should continue to receive support according to the previous five.

Nasal Medication by Noah D. Fabricant, M.D., (250, *The Williams & Wilkins Company, Baltimore, Maryland*) presents in a single, compact volume for the first time the details of nasal medication. To the general practitioner and the allergist as well as to the specialist, this book is of great value.



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News Notes

Akron—A federal grant of \$590,000 to the Akron Hospital Council is expected to increase by 250 beds the capacity of four hospitals there. It is reported that City Hospital will get 100 new beds, St. Thomas and Peoples, 60 each, and Children's, 30, increasing the total capacity of the four hospitals by 30 per cent.

Barberton—Staff officers of Citizens Hospital include: Dr. George R. Wellwood, chief and Dr. Edward L. Voke, secretary.

Cincinnati—Dr. E. A. Baber was honored recently with a dinner in recognition of his completion of 20 years as superintendent of the Longview State Hospital. The Longview Social Service League and several civic organizations cooperated in the arrangements.

Columbus—Staff officers of White Cross Hospital are: Dr. Wm. F. Millhon, chairman and Dr. Richard E. Vance, secretary.

Dayton—The following staff officers of Good Samaritan Hospital were recently re-elected: Dr. N. C. Hochwalt, president; Dr. R. L. Johnston, secretary; Dr. A. W. Carley, Dr. C. D. Padan and Dr. J. C. Walker, executive board members.

Eaton—Dr. Thomas P. Sharkey, Dayton, who served with a naval hospital unit in the Solomon Islands, and was invalided home recently, described the hardships which American service men face in that area, when he addressed the local Rotary Club.

Fostoria—New staff officers of City Hospital are: Dr. J. L. Murphy, chief; Dr. L. C. Gerlinger, assistant chief, and Dr. D. J. Mariea, secretary-treasurer.

Hamilton—New staff officers of Fort Hamilton hospital are: Dr. Dan M. Skinner, president; Dr. Corliss R. Keller, vice-president and Dr. George G. Flenner, secretary-treasurer.

Kent—Officers of Robinson Memorial Hospital are: Dr. B. H. Nichols, chief of staff; Dr. J. M. Painter, Kent, vice-president; Dr. R. D. Worden, Ravenna, secretary.

McComb—Dr. Russell E. McBroom spoke on "Civilian Responsibility to the Army and to the War Effort," at a meeting of the Shawtown Grange.

Millersburg—Dr. J. A. Earney has been re-appointed health commissioner of Holmes County.

New London—"Our Town—Its Health", was the topic discussed by Dr. H. A. Erlenbach at a meeting of the P.T.A.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

April, 1943

No. 4

JONATHAN FORMAN, M.D., *Editor*

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The Anatomic Basis of Emotion

A. R. VONDERAHE, M.D.

THE amazing results yielded by electric shock, insulin, metrazol and frontal lobotomy in cases of psychosis has called attention to the pronounced alteration of emotional states and other conscious states produced by physical and chemical factors acting on the structure of the central nervous system. In recognition of the role these factors play the term "psychosomatic" has been devised, so that those who would approach the subject merely from an organic standpoint or merely from a psychological standpoint are reminded that in the living man there is no separation of body and psyche but that the living human being (as contrasted with a cadaver) is an animated unit with functioning structure and consciousness welded to make a single whole thing or integer.

The anatomic substratum of the sensory and perceptual functions and of the visceral and somatic motor functions has been fairly completely demonstrated. The anatomic substratum of emotion, however, is just beginning to be understood. Within recent years our information has become more complete and it is the purpose of this paper to review some of the evidence for the belief that there are certain areas and pathways of the brain which are critically related to the presence, absence and alterations of emotion and which enter into its integration with all other functions of the nervous system.

The word emotion may be defined as "a tendency toward or away from an object accompanied by a notable bodily alteration." This very old definition provides for two components of emo-

The Author

• Dr. Vonderahe, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1921; member American Neurologic Association, American Association of Anatomists; American Psychiatric Association; American Association of Neuropathologists; consultant neuropsychiatrist, Hamilton County Chronic Disease Hospital, associate professor of anatomy (neurology) University of Cincinnati College of Medicine.

tion: (1) the conscious emotional experience, affect, "the tendency toward or away from an object": and (2) emotional expression, "the notable bodily alteration". The definition of emotion may be exemplified by every day observation. The tendency towards an object with possession of the object gives rise to the emotion of joy. The tendency towards an object where an obstacle has to be removed by fighting gives rise to the emotion of anger. The tendency towards an object when in the possession of someone else gives rise to jealousy. In like manner all other emotions may be described.

The anatomic mechanism involved in emotion must provide a basis for the following: (a) emotional expression, involving characteristic facial and other striated muscle movements and also alterations in the blood vessels, glands and viscera, (b) emotional experience or affect, (c) the coordination of emotional expression and affect, (d) the integration of emotion with intellectual and perceptual functioning so that provision is

Read before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

made for the effect of emotion on ideas, memories, judgment, and reasoning, and for the effects of thinking on emotion.

EMOTIONAL EXPRESSION

The observations of Foerster and Gagel,¹ Fulton and Bailey,² Dott,³ Guttmann and Hermann,⁴ Cushing⁵ and others indicate that irritation of the posterior portion of the hypothalamus results in some type of maniacal or hypomaniacal excitement. This has been verified in animals by physiological experiments. Bard⁶ has shown, that the rage reaction, a preponderantly orthosympathetic response, can be elicited after successive levels of decerebration until only the posterior portion of the hypothalamus remains. When this too is eliminated the motor expression of rage no longer occurs. Confirmatory

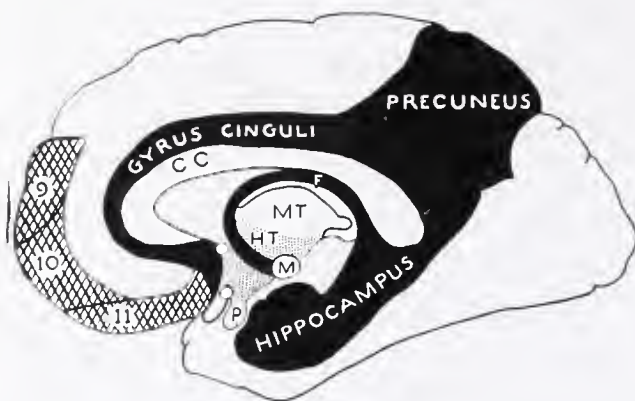


FIG. 1. This diagrammatic sketch illustrates some of the structures concerned with the representation of emotion in the brain as revealed in a mesial sagittal section. CC represents the corpus callosum, F the fornix, HT the hypothalamus, M the mammillary body, MT the medial thalamus, and P the pituitary body. Numbers 9, 10 and 11 represent the corresponding cortical areas of Brodmann.

evidence has been presented by experiments of Ranson and Magoun.⁷ Emotions such as joy and contentment which involve primarily parasympathetic mechanisms are, by their very nature, more elusive as far as experimentation goes. There is, however, some evidence to indicate that the motor expression of these emotions is represented in the anterior portion of the hypothalamus and in the preoptic area. Thus the increase in nutrition and sense of well-being following frontal lobotomy probably may be ascribed to effects on these regions.

The cell groups and connections of the hypothalamus (Fig. 1) have been previously described.⁸ The hypothalamus is the recipient of impulses from olfactory, gustatory, visual, auditory and general bodily sensory end-organs as well as from the striatum, medial nucleus of the thalamus and from the cortex of the hippocampus and perhaps other cortical areas.⁹ Included in the efferent mechanism of the hypothalamus, also, are certain cell groups of the dorsal thalamus: the nucleus paramedianus,¹⁰

the nucleus reuniens and the thalamic substantia reticularis.¹¹ In a word, the hypothalamus and its related areas represent a primitive brain with a certain autonomy. The motor pathways emerging from this strategic area are somewhat unusual. There is, first of all, the curious innervation of the pituitary body carried out by means of a fiber system running from the anterior hypothalamus (supra-optic and paraventricular nuclei) down the stalk of the infundibulum into the posterior lobe of the pituitary body. A structural basis is thus established for a specificity in the release or inhibition of one or more of the pituitary hormones as a result of activity within the brain. There are at least two other efferent systems of the hypothalamus: (1) the dorsal longitudinal fasciculus proceeds from the more anterior portion downward in the brain stem in the walls of the third ventricle, aqueduct and the fourth ventricle where it comes into intimate contact with the visceral efferent cell column of the midbrain and medulla; and (2) the descending hypothalamic tract, a more diffuse pathway, has large components from the posterior portion of the hypothalamus and descends in the reticular formation of the brain stem. While the dorsal longitudinal fasciculus appears to be primarily parasympathetic in its relations, and the descending hypothalamic tract primarily orthosympathetic, we cannot assert with assurance that this is the case. The projection of the mammillary bodies to the anterior nucleus of the thalamus (bundle of Vicq d' Azyr) and other mammillary connections will be considered later in the paper.

In summary, the hypothalamus, preoptic area and some nuclei in the dorsal thalamus are critically related to the somatic and visceral expressions of emotions. Through this mechanism are mediated the smiles, rapid heart beat and glowing face in joy; the mottled reddening of the face, neck and upper thorax in shame; the pallor and tears in sorrow; the gasping breathing in anger; the outbreak of sweat in anxiety; the dilatation of the pupils in terror. In the hypothalamic areas both divisions of the autonomic nervous system, the parasympathetic and orthosympathetic, are brought together so that we are not surprised to find in some forms of emotional expression, vasodilatation (a parasympathetic manifestation) combined with a rapid heart beat (an orthosympathetic manifestation). Alteration of water intake and output, of carbohydrate, protein and fat metabolism occurring in emotional states are undoubtedly mediated by the hypothalamus. In predominantly quiet contented emotional states metabolic functions are on the anabolic side, in predominantly violent emotions metabolism is on the katabolic side. The connections of the hypothalamus with the pituitary body reinforce these metabolic effects and by

means of various pituitary hormones affect influences on the gonads and other internal secreting glands.

All parts of the autonomic and somatic nervous system take part in emotional expression. The numerous and typical facial expressions characteristic of each emotion as well as alterations of tonus in the striated muscles elsewhere in the body can be accounted for by the interrelationship of the hypothalamus with the striatum and with the reticular substance of the thalamus.

EMOTIONAL EXPERIENCE

Emotional experience or affect, that component of emotion which is concerned with the peculiar conscious feeling accompanying an emotional state, has been the object of study from the earliest days of man. The ancient philosophers paid much attention to it, and throughout the ages it has never been entirely neglected. It has always been thought difficult to translate into words these affective experiences, but it can be said that literary ability reaches a high level when the range of emotional experience is presented in words for the reader to understand and appreciate. The attempt to verbalize affective events in the life of an individual is a cardinal method of psychotherapy; it is the essence of the psychoanalytic method. Words, however, are notoriously not a necessary part of emotional experience.

We owe to the pioneer paper of Papez,⁹ the first adequate statement of the role of the hippocampus and the gyrus cinguli in the conscious experience of emotion. It appears very likely that the old grouping of these structures as part of the olfactory brain or rhinencephalon obstructed our understanding of their importance in emotion. There is always a hazard in giving a structure a functional name; the reader is too content thereafter to regard the matter as settled and to stop further inquiry. Many of the earlier writers on this subject however did not commit themselves to the view that the above-mentioned areas were solely olfactory in function. Thus Quain¹² states that only a small part of the rhinencephalon appears to be especially olfactory. Herrick, particularly, pointed out that in the lower animals the sense of smell is associated with energizing activity. The first emotional state, that of being attentively alert and ready for action in the pursuit of food or for flight or mating appears to grow out of olfactory perception. A summary of the relevant clinical cases has been made by Papez.⁹

On the experimental side, Klüver and Bucy¹⁴ found that removal of the hippocampal formation and other gyri on the mesial orbital surface of the temporal lobes, bilaterally, produced remarkable alterations in monkeys. These ani-

mals displayed no hesitation or fear in approaching strange persons or even live snakes or other objects which normally produced strong emotional responses. In some instances the change in affectivity was so marked that there was complete absence of emotional reaction in practically all situations which in the past aroused

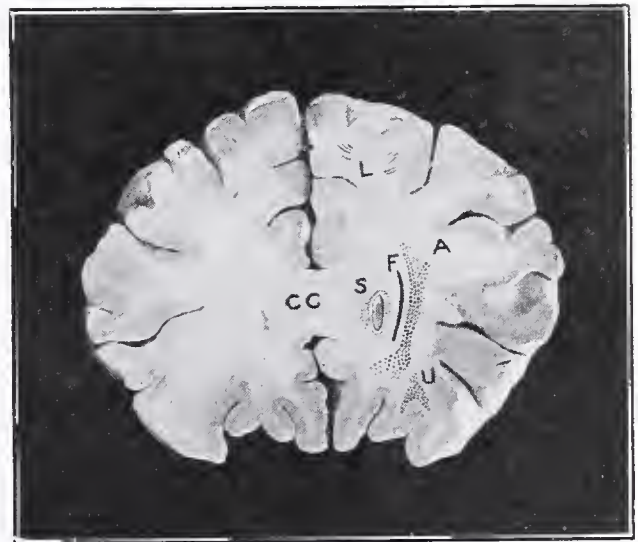


Fig. 2. This is a retouched photograph of a frontal section of the frontal lobe in a plane passing through the tip of the anterior horn of the lateral ventricle. It is the approximate level of a prefrontal lobotomy section. In the figure, A represents the anterior thalamic radiation, CC the corpus callosum, F the fronto-occipital fasciculus, L the local radiations and association bundles in the gyri, S the subcallosal fasciculus surrounding the tip of the ventricle and U the uncinate fasciculus.

anger, pain and related forms of behavior. On the other hand there was marked increase in sexual activity and greater divergence of sexual reactions. All these changes persisted. Spiegel, Miller and Oppenheimer¹⁵ found that after acute lesions of the hippocampus-fornix system, marked rage reaction appeared. Severe outbursts of rage were observed after bilateral lesions of the amygdala in the anterior pole of the temporal lobe.

In cases where the gyrus cinguli is destroyed, as in one of our cases, there is almost total lack of affect, with development of indifference and finally complete apathy. Usually tumors of the corpus callosum also involve the gyrus cinguli and for this reason present the findings of progressive apathy. That these manifestations are not due to involvement of the corpus callosum is indicated by the fact that the corpus callosum may be destroyed by section, as Akelaitis¹⁶ has done in a series of epileptics, without producing any alterations of behavior.

Some of the structures involved in this system are illustrated in the accompanying diagram. (Fig. 1) The hippocampus lies on the inner and mesial aspect of the temporal lobe. The chief outflow of this system is the fornix which arises from the posterior aspect and sweeps into the mammillary bodies.

The mammillary bodies represent a critical focus for impulses arising from the hippocampus and from the hypothalamus. It is not at all unlikely that the mammillary bodies are required for alertness, vigilance, attention and wakefulness. Destructive lesions in the mammillary bodies are associated with contrary effects.¹⁷ Together with some associated regions the mammillary bodies are included in the mechanism of sleep. The mammillary bodies project via the mammillo-thalamic tract of *Vicq d' Azyr* to the anterior nucleus of the thalamus. The anterior nucleus of the thalamus, in turn, projects via its own radiation into the gyrus cinguli. The gyrus cinguli (Fig. 1) follows an extensive course around the entire corpus callosum and posteriorly becomes continuous with the hippocampus. Within this conformation lies an arched association bundle, the cingulum, which sends a large component of fibers into the precuneus. The precuneus is the only area of the brain in which there is a statistically different size in males and females. It is smaller in females and is regarded by Papez¹⁸ as probably related to the conscious phases of sexual emotion. The critical importance of the mammillary bodies in this system is suggested by their connections. The afferent fibers to the mammillary bodies are: (1) the medial fore-brain bundle, or hypothalamic association bundle, which streams through the walls of the third ventricle into the mammillary bodies and provides a path over which hypothalamic impulses and various sensory impulses which have been shunted into the hypothalamus, may be relayed to the mammillary body; (2) the mammillary peduncle which, via its nucleus intercepts the medial lemniscus, and may carry into the mammillary body impulses of general proprioceptive sensation;⁹ and (3) the fornix which brings into the mammillary body the impulses from the hippocampus and related areas.

The efferents of the mammillary body are the prominent mammillo-thalamic tract of *Vicq d' Azyr* to the anterior nucleus of the thalamus and the mammillo-tegmental fasciculus which joins the dorsal longitudinal fasciculus and enters the brain stem.

It is interesting to point out the observation of Papez⁹ that hypothalamic activity may be reflected into the mammillary body and then via the anterior nucleus of the thalamus to the cortex of the gyrus cinguli, so that a basis exists for the possibility that impulses passing through the hypothalamus, in the intact animal or man, may give rise to certain affective states of feeling. Masserman¹⁹ is of the opinion, that the hypothalamic mechanism cannot be the entire basis for an awakening of emotional experience inasmuch as animals with extensive hypothalamic lesions react to emotional stress and can appar-

ently experience genuine affective states. At all events the structural connections between the hippocampus and the hypothalamus together with related structures and pathways are sufficiently definite to provide an adequate basis for the coordination of emotional expression and affect. Splitting of affect from emotional expression, at least, has been demonstrated.⁶

THE INTEGRATION OF EMOTION

The cerebral cortex provides a meeting place for all neural processes and in the final analysis must be considered as partaking in its entirety in the task of assimilating affective states into the unified purposive activity which is designated integration. In this process, however, a somewhat specialized role appears to be assigned to the anterior portions of the frontal lobes, and in particular to the connection of some of these areas to the medial nucleus of the thalamus. Kleist²⁰ implicates Brodmann's areas 5 (parietal lobe), 11, 12, 46, 47 and the lower part of 32 (frontal lobe) together with the gyrus, cinguli and precuneus as involved in higher psychic functions, particularly the values which the individual assigns to self, to ideas and situations. The frontal lobe association areas, according to Fulton,² include all cortical tissue lying rostral to areas 6 and 8. Because of its relatively large size in man, this region is sometimes termed erroneously "the frontal lobe". It includes areas 9, 10, 11, 12, 32, 46 and 47 of Brodmann.

From Brickner's²¹ work on Dandy's case of bilateral frontal lobectomy, as well as from other clinical observations, we know that after destruction of the frontal lobe association areas changes of affectivity occur and that a state somewhat like paresis results, with lack of judgment, impropriety of behavior, loss of moral and aesthetic sense, loss of initiative and disturbances of normal sexual function. The experience of Freeman and Watts,²² and of Strecker, Palmer and Grant²³ in cases of frontal lobotomy confirms and amplifies the older observations. In the lobotomy operation the white matter of each frontal lobe is sectioned in a plane passing immediately anterior to the tip of the anterior horn of the lateral ventricle. The frontal lobe association areas are thereby removed from some paths connecting them with other portions of the brain, while short association fibers connecting convolutions with each other and with adjacent posterior cortical areas undoubtedly remain. The destructive bilateral lesions following this operation are surely unique and have no exact parallel in clinical cases involving pathologic alterations of the frontal cortex and white matter.

Although the large number and variety of effects of this operation depend to a certain extent on the previously existing type of psychosis, the following summary of results may be especially

relevant.²³ There tend to occur: (1) an increased suggestibility, (2) a development of a state of affability and friendliness, (3) a loss of introspective self-analysis (this factor alone removing the obsessive agitated thinking), (4) improvement in autonomic function with a tendency to gain in weight, (5) a tendency to better energizing of activities, and (6) an alteration of time relationships—not for the immediate present—but for global time, for the estimate of the past life of the individual and for the projection of planned activities into future time. Affect and emotional expression are profoundly altered but not destroyed by section of the frontal lobe connector pathways. After this operation, a person may respond with sorrow or joy to appropriate situations but the emotion is not maintained. The resultant state, indeed, suggests that the operation may be like Omar Khayyam's

.....cup that clears
Today of past regret and future fears.

Part of the price paid for this is some alteration of judgement and of the delaying capacities that are so characteristically human, of withholding action until all facts are considered, of caution, and of foresight.

Each frontal lobe has rich association bundles from one convolution to another, both on the same, adjacent and opposite surfaces. The frontal lobe association areas are richly connected to each other by large fiber bundles of the corpus callosum. In a prefrontal lobotomy operation some of these fibers are cut. Perhaps the most striking effects are due to the section of the anterior thalamic radiation (Fig. 2) which runs to and from the medial nucleus of the thalamus and the frontal polar cortex.²⁴ It is probable that the immediate disorientation which occurs, and which is sought after by the surgeon for a successful operation, develops at the time he severs this bundle. This pathway is undoubtedly of critical importance for the comprehension of a situation or of a constellation of ideas, Papez²⁵ in discussing lesions of the frontal pole states "since many situations are perceived but not comprehended by the patient, his total affective and sensorial states must necessarily be more equable and the result is that he appears emotionally and perceptually blunted." If substantiated this is unusually striking evidence for the school of philosophers who maintained that "intellect takes precedence over the will;" that the meaning of the object must be understood before the drive toward or away from it can be established.

The medial thalamus in turn connects with the hypothalamus by means of a periventricular fiber system streaming downward close to the ependyma of the third ventricle so that a structural provision is present for influencing the hypothalamic centers for emotional expression.

The medial thalamus, however, does much more. It is the recipient of impulses from other portions of the thalamus. It appears to be a mechanism by which the total perception of all sensory fields is funnelled into one spot, producing an arrangement for the consciousness of something that might be described as "being" or "total existence" at any given moment of time. In addition by means of the system of intrathalamic connections with the pulvinar (which in turn is connected by reciprocal fiber systems to the parietal and occipital cortex) there is present a basis for a kind of radiation of feeling in the process of continuous perception and thinking.²⁵ Realizing the global connections of the medial nucleus of the thalamus it is not difficult to see with how much justification some writers maintain, not only that every sense perception carries along with it an affective component but that all portions of the brain are concerned with affectivity. The newer observations do not exactly contradict this view but simply indicate that some portions of the central nervous system are more critically implicated in affectivity. This may be sufficiently adequate to permit its use for neurologic diagnosis and for reasonable predictions of the outcome of operative procedures.

The fronto-occipital fasciculus is also severed. It may be seen in figure 2 as a band of fibers situated between the tip of the ventricle and the anterior thalamic radiation. These fibers are very likely improperly named. Rosett²⁶ and Papez²⁷ regard them as a segregated bundle of the anterior thalamic radiation destined for the medial and dorsal frontal cortex. The subcallosal fasciculus surround the tip of the ventricle and is also cut. Its significance is uncertain. Mettler²⁸ found that it degenerated after lesions of the frontal lobe. Grossly it is closely associated with the caudate nucleus. It is probable that at least some of the fibers of the uncinate fasciculus are cut. This bundle lies close to the basal part of the frontal lobe. It connects the lateral and posterior orbital cortex with the front end of the superior temporal convolution in a to and fro manner. A direct transference of engrams from the lateral portion of the orbital cortex to the cortex at the tip of the temporal lobe should therefore be postulated on anatomic grounds.²⁷ The superior longitudinal fasciculus does not enter the frontal association areas.

The evidence of frontal lobotomy indicates that the frontal lobes tend to act together, for the operation must be done bilaterally. Some anatomic reasons may be suggested for this: (1) the anterior thalamic radiation sends fibers to the opposite frontal association areas via the corpus callosum.¹² (2) The medial nucleus is frequently connected with its fellow of the opposite side by means of the massa intermedia. (3) The fibers

of the corpus callosum are not entirely destroyed by the incisions so that connection can still be made between the two sides.

A review of the clinical and pathological findings in our cases presenting lesions in the areas mentioned in this paper has not been found to offer contradictory evidence for the views here summarized. Cases which have been studied in serial microscopic sections have, on the whole, tended to confirm them. Included are an especially large variety of instances of pathologic involvement of the hypothalamus.²⁹

SUMMARY

(1) The hypothalamus and the preoptic region together with some dorsal thalamic nuclei are concerned with emotional expression. The posterior aspect of the hypothalamus is concerned with emotional expression involving primarily sympathetic responses; the anterior aspect together with the preoptic area probably with emotional expression involving primarily parasympathetic responses.

(2) Emotional experience or affect appears to be especially related to a system comprising the hippocampus, fornix, mammillary body, mammillothalamic tract, anterior nucleus of the thalamus and gyrus cinguli. The mammillary body is a focal coordinating area, being arranged for the reception of impulses from the hippocampus as well as from the hypothalamus.

(3) The relationship of comprehension to emotion appears, in a measure, to be dependent on the frontal lobe association areas and especially on the connections of these areas with the medial nucleus of the thalamus.

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Advanced Prostatic Cancer

The question of inactivation of androgens by estrogens in prostatic cancer as opposed to castration naturally arises. This type of endocrine castration as opposed to surgical castration is at first glance attractive since it can be carried out without surgery and is financially economical. However, it is unsound since the inhibition of the androgens by estrogen is not complete and a complete inhibition or elimination of androgens is the basis for the modern treatment of advanced prostatic cancer: moreover, this partial inhibition is temporary and estrogen must be administered for long periods of time. Further, in many species the administration of estrogen for a long time to males is in itself a carcinogenic. While it was first shown in this laboratory that beneficial results occur in prostatic cancer from both surgical castration or estrogen administration, we feel that bilateral orchiectomy is the method of choice as a basic treatment in advanced or metastatic prostatic cancer.—Charles Huggins, M.D., Chicago; *Conn. S. Med. Jour.*, Vol. VII, No. 2, February, 1943.

Primary Cyst of Greater Omentum

Report of a Case With Fatal Blood Transfusion Reaction

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EARLY in its development the primitive alimentary canal is suspended from the dorsal wall of the embryo, along the median plane, by a simple dorsal mesentery, which extends along the whole length of the tube. There is also present in the upper part of the abdominal cavity a ventral mesentery, which connects the stomach and duodenum to the back of the liver, and, passing on, connects the front of the liver to the anterior abdominal wall and the diaphragm. The portion of this ventral mesentery between the stomach and liver becomes the lesser omentum; its anterior portion between the liver and the anterior abdominal wall forms the falciforme ligament.

That portion of the dorsal mesentery lying behind the stomach is known as the mesogastrium. At first it is relatively short; but with the growth of the posterior wall of the stomach a torsion of the organ occurs throwing the left side of the mesogastrium anteriorly and the right side of the mesogastrium posteriorly. There occurs an enormous lengthening of the mesogastrium, during which process it insinuates between the intestines and the anterior abdominal wall and folds on itself with the result that the upper portion of the right side (now the posterior) is closely in contact with the lower portion of the same side. Usually those portions in intimate contact fuse and the endothelial peritoneum is obliterated at the areas of fusion. The resulting structure is known as the greater omentum. It becomes attached to the transverse colon, and, whereas there were originally four layers of peritoneal endothelium, there are now only two, between which are long slender parallel blood vessels arising from the gastro-epiploics and anastomosing with the vessels of the transverse colon.

After the study of the development of the omentum, one would be led to believe that cyst formation would be no more uncommon than hydrocele of the spermatic cord. However, the condition is rare, as is attested by the fact that in a review of the literature and report of a case Horgan¹ in 1935 listed the total as 97 cases. In 1939, Guernsey² in a review of the cases in the Mayo Clinic from 1907 to 1938 found 20 cases, including two lipomas. In 1941, E. J. Eichwald,³ of Dayton, Ohio, reported a case of an omental cyst in a three weeks old female,

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causing fatal ileus. Previously, the youngest case of record was that of Schremm occurring in a female one year of age.

The typical structure of these cysts consists of a fibro-muscular wall, often lined with a layer of endothelium and containing clear fluid. They may be found free of adjacent structures in the peritoneal cavity, developing in the potential spaces between the leaves of the greater omentum. They vary greatly in size, may be single or multiple, and have occurred most frequently in children and young women.

The symptomatology varies greatly, as would be expected, according to the size and location of the cysts, as to the presence of adhesions to adjacent viscera or to the abdominal wall, or as to the occurrence of hemorrhage into the cyst. According to Horgan the symptoms are caused by "pressure, torsion, traction", and he lists them as "nausea, vomiting, anorexia,¹ constipation or diarrhea, pain, dysuria, frequent micturition". There are some cysts that cause no symptoms. Complications may be present due to the size, relations, and site of the mass, manifesting circulatory, functional, or traumatic effects upon adjacent structures, or excited by degenerative changes within the cyst. Of the series reviewed by Guernsey, eleven were incidental findings at laparotomy or necropsy, and of themselves had produced no symptoms.

Treatment is surgical, preferably by excision of the cysts, unless adhesions to contiguous viscera prevents. In the case of massive cysts, removal is facilitated by aspiration of the fluid contents. When the adhesions do not permit a one-stage procedure, exposure and fixation to the anterior abdominal wall followed by drainage are necessary.

Because of the rarity of the condition diagnosis is difficult. Some cases may first be noticed because of the increasing size of the abdomen, which has in some cases reached tremendous proportions before causing any symptoms. As stated before, because the symptoma-

¹Submitted November 18, 1942.

tology is influenced by the size, location and contiguity of various abdominal structures, the diagnosis of omental cyst is rarely made. The differential diagnosis includes the consideration of ascites, ovarian cyst, tuberculous peritonitis, mesenteric cysts, gallbladder disease, affections of the stomach, liver, or kidneys, pancreatic cysts, neoplastic or parasitic lesions, primary or metastatic malignancy, etc.

As to the cause of the formation of omental cysts, Guernsey favors the post-inflammatory theory of pathogenesis, while Montgomery and Wolman believe in a neoplastic origin. There

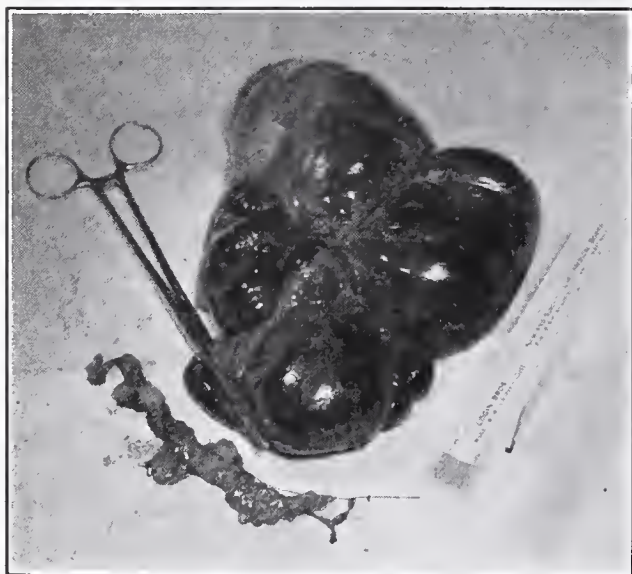


Fig. 1. Photograph of Cyst of Greater Omentum, taken shortly after operation. Included is a section of omentum, showing some of the smaller cysts, which abounded throughout the entire omentum.

have been several omental cysts reported, in which there is definite evidence of neoplastic growth with hyperplasia and hypertrophy of the endothelium, development of new lymph vessels and in some cases formation of solid strands of endothelial cells. Probably some are formed after the same manner as the simple hydrocele of the spermatic cord. One can imagine areas of the greater omentum where fusion did not occur, and, with a slow accumulation of fluid, a resulting cyst.

Because of the apparent rarity of cysts of the greater omentum, the following case is presented. This case is of additional interest in that it illustrates the hyperpyrexia that so often follows operation on very young children, and also because of the very severe blood transfusion reaction from which the child died:

CASE REPORT

Case G. B., three years of age. The child had always been healthy, and had not had any of the diseases of childhood. The mother and father were both living and in good health.

P. I. Jan. 16, 1942, he roused from his afternoon nap and stood by the side of his bed before

his mother, when he was seized by a very severe abdominal pain, which made him scream out and double over holding his arms across his abdomen. He retched and strained a few times but was unable to vomit. This pain continued until relieved by codeine. About one-half hour after the onset of the pain his temperature was 103.8° F. rectally. After the effect of the codeine had passed the pain was present, but in a much milder degree than at the onset, the temperature was 101° F rectally, and there were no other symptoms. Physical findings consisted of a moderate degree of abdominal tenderness, active peristaltic sounds, and a doughy fullness of the entire abdomen. Throughout the following week the child appeared practically normal, except that he showed a disinclination to romp and play, and preferred to sit in his bed and draw pictures.

On Jan. 26, 1942, he had a mild degree of abdominal distress, his bowels were slightly loose, and he vomited once. Otherwise nothing unusual happened, except that he still showed a disinclination to exert himself. On the next day the looseness of the bowels subsided, but his abdomen became more distended and rounded, and he objected to standing on his feet, but appeared to be content when lying on his back with his head and shoulders propped up. The abdomen was tender in the lower half, and he resented palpation. Peristaltic sounds were active. On Jan. 28, his condition had not changed appreciably, except that accompanying the low grade general abdominal tenderness was pronounced tenderness at McBurney's point. He had no complaints when he was not disturbed from his position on his back propped up with pillows.

A blood count was made: Hemoglobin 80 per cent, Erythrocytes 3,980,000, Leukocytes 17,700, Neutrophils 58 per cent, Lymphocytes 40 per cent, Monocytes 2 per cent. Urinalysis: acid, Albumin very faint trace, occ. leukocyte, 4 erythrocytes.

After consultation, in which all concerned expressed mystification as to a definite diagnosis, operation was decided upon.

A small gridiron incision was made. Through this could be discerned a large, rounded, smooth, dark blue mass. The gridiron incision was closed and a midline incision made. The large rounded mass was then discovered to be the greater omentum, and was attached to the abdominal wall near McBurney's point by recent friable adhesions. These were readily separated, after which the mass was easily delivered, clamped and removed. It was then noted that the remainder of the omentum consisted of innumerable small cysts ranging from 0.5 to 5 cm in diameter. One section of these was clamped and removed for examination. In tying the clamped pedicle of this latter small group of cysts, the ligature broke, and there was considerable hemorrhage before the bleeding vessels were retrieved and ligated. The operation was rapidly completed, and the child was given 100 cc. of plasma intravenously in the operating room.

He was removed to his bed and placed in an oxygen tent, at which time his pulse rate was 100 and respirations 36 per minute. Four hours after operation temperature 100, pulse 140, respiration 30. He talked rationally and asked for water. He was given the usual postoperative treatment. Next day a blood count was taken: Hb 69 per cent, erythrocytes 3,960,000, and he was given a transfusion of 100 cc. of matched citrated blood. Following this he had a chill

and his temperature, which had been 103° F rectally rose to 105° F, and after a few hours subsided. A specimen of urine taken 12 hours post-transfusion was normal. During the next three days his temperature subsided to 101° F rectally, pulse 90, respiration 24, but he showed a persistent somnolence. Flatus was expelled rectally, peristaltic sounds were active, and he asked for milk.

February 4, he complained of severe abdominal pain, and his abdomen became distended, and he vomited frequently and was unable to expel flatus. X-ray showed intestinal obstruction. An ileostomy was done under local anesthesia. February 5, he complained of something in his rectum. Digital examination revealed a large scybalus present. This was removed, after which he defecated. February 6, he expelled a large amount of flatus through the ileostomy tube and also per rectum. His general condition appeared to be fairly good, and he was mentally alert.

With the expectation that a small blood transfusion would hasten his recovery, he was transfused with 100 cc. of citrated matched blood from his maternal grandfather. After the blood transfusion he had a severe chill followed by high fever. For 12 hours he did not urinate, then he was catheterized and 25 cc. of opaque dark red fluid was obtained. He developed an icteric tint of the skin and his face and body became edematous.

February 7, 8, and 9, the anuria persisted, and the edema increased and he became comatose. On February 10, catheterization obtained 50 cc. of urine of an orange color, but his general condition continued to deteriorate. February 11 and 12, he was entirely comatose, and early in the morning February 13, he died.

Autopsy was requested, but permission was denied. Pathological report: The specimen consists of a multilocular cyst which measures 15x15x5 cm. On section the cyst walls are found to be about the uniform thickness of ordinary paper, and contain numerous large blood vessels. The cyst cavities are filled with thin dark brown fluid, with coarse flaky material and a small amount of loosely matted tissue of friable consistency.

Accompanying this large cyst is a fragment of omentum which contains a few small thin walled cysts filled with clear thin fluid.

Diagnosis after microscopic examination: Lymphatic cyst of omentum.

The cause of death was the severe blood transfusion reaction. A relationship between harmful reactions to blood transfusions and the kind of foods eaten by the donor was observed by N. A. Mason and associates, of Chicago, in their study in dogs. Harmful reactions occurred most frequently when the donor was fed a protein or a protein-carbohydrate meal while the recipient had been fasting. Harmful reactions were less frequent when the donor had been fed a meal of carbohydrates alone, or had been fasting, before giving blood. No harmful reactions occurred when both donor and recipient were fed before the transfusion, or when the recipient was fasting and the donor was fed fats.

An interesting sidelight on this case was that the child had been under an enforced fast. He had had previous plasma transfusions and one blood transfusion. To what extent these altered the blood is a matter for conjecture. The last

transfusion was given from his maternal grandfather who commended himself by stating that he had prepared for this transfusion by eating a big steak and potatoes dinner so that he would have lots of nourishment to give the boy.

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Colonic Malfunction; the Unstable Colon

Colonic malfunction is a very frequent complaint in the tuberculous. Among its most prominent causes are constitutional autonomic instability, toxemia of the disease, inappropriate diet including milk in susceptible individuals, and vicious bowel habits. The clinical picture is that of the unstable colon, the outstanding manifestations of which are alternating constipation and diarrhea with "belly-consciousness," the latter being characterized by flatulence, distention, and minor colics. The early recognition and prompt treatment of colonic instability may not only prevent the development of organic bowel changes, but may aid materially in the control of the underlying tuberculosis.

The treatment of the unstable colon should be organized in a comprehensive and conservative manner. The underlying causative factors, whether inherent or acquired, should be appraised and if possible corrected. The doctrine of the three R's—reassurance, relaxation, and restoration of normal bowel function—should be followed as a guide to treatment. The Schmidt diet without milk or milk products should constitute the basic feeding plan. All iced and raw foodstuffs should be avoided, and hot nourishment, both fluid and solid, should be substituted. Ripe bananas are exceptionally well tolerated by most patients.

Vicious bowel habits, such as cathartic or enema addiction, should be eliminated, and constipation, if it persists after such withdrawal treatment, should be managed by soft bulky diet, or by artificial bulk producers and other appropriate measures. If the constipation is due to rectal stasis, local treatment with small oil injections or suppositories is indicated. Spastic states responded to sedation, lubrication and belladonization, unless the latter is especially contraindicated.—Col. John L. Kantor, M.C., U.S. Army; *Rocky Mountain M.J.*, Vol. 40, No. 3, March, 1943.

Congenital Arteriovenous Aneurysm

With Report of a Case Arising From the Superficial Circumflex Iliac Vessels

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THE entire subject of abnormal arteriovenous communications has been exhaustively studied by Reid,¹ Pemberton and Saint,² Holman,³ Matas,⁴ and Veal and McCord,⁵ among others. These aneurysms may be either acquired or congenital, with the former occurring far more frequently. Reid¹ believed that simple angiomas, so frequently seen at birth, are probably the result of communications between arterioles and venules and further points out that the development of arteries and veins out of a common capillary plexus affords an explanation for the occurrence of the congenital communications.

A good deal of the early work on arteriovenous aneurysms was done during and shortly following the first World War. Of 447 cases reported by Callander⁶ in 1920, 350 resulted from bullet or knife wounds and an additional 33 from contusions and fractures. Only three cases were congenital in origin. Unquestionably the next few years will again see a marked increase in frequency of the traumatic aneurysms.

In the acquired or traumatic type of aneurysm the communication between artery and vein is usually single, whereas in the congenital form there are usually multiple communications. These communications may stay closed for years before opening and becoming patent. The congenital type may occur at birth but often attention is not called to the condition until several years of age when it begins to cause symptoms.

The congenital form may occur between any vessels but is most often seen in the extremities where, due to progressive enlargement, it may cause both local and systemic effects.

De Takats⁷ summarizes the common physical characteristics usually seen in the acquired and late untreated congenital types, as follows: The thrill or bruit may be heard with the naked ear or with the stethoscope. They can be promptly stopped by compressing the proximal vein which equalizes the pressures in the arterial and venous channels thus abolishing the whirling eddies of alternating high and low pressures. The veins are prominent, filled with bright red, arterialized blood. When the fistula is closed there develops a rise in blood pressure and a fall in the pulse rate. Cardiac dilatation and hypertrophy occur often with large arteriovenous fistulas. Treatment is indicated not only to relieve the embarrassment of peripheral circulation but also to

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unburden the heart, which, unless the myocardium is permanently damaged, will regain its normal size and functional efficiency.

Ward and Horton⁸ point out that whereas in acquired fistulas a bruit and thrill are invariably present, in congenital anomalies these are usually absent except in the relatively advanced lesion. They stress the importance of early diagnosis and treatment to prevent development of the unfavorable late local and general effects.

REPORT OF CASE

G. S., a white single college girl, 21 years old, referred to us by Dr. C. M. Treffinger of Eaton, Ohio, was first seen on August 22, 1941, with the complaint of a large pulsating tumor on the left side of the pelvis of 18 years duration. Her parents' attention was directed to the tumor when she struck her left hip against a table at the age of three. The mass increased slowly in size as the patient grew older, but caused no symptoms except for slight tenderness when it was struck, until about 18 months ago. At that time, it began to enlarge and to become painful. Pain occurred at any time, usually lasted only for several minutes, but was greatly exaggerated and of longer duration when the tumor was accidentally struck.

Remaining history was negative except for loss of seven pounds of weight in the past three months. Family history was negative for any similar condition.

Physical examination revealed a well developed, well nourished white female about 21 years of age. There was a soft systolic murmur heard over the entire precordium most marked at the apex. The heart was not enlarged to percussion. Pulse rate was 92.

There was a large oval shaped tumor extending from the left femoral triangle laterally over the iliac crest, measuring 14 inches in length, two inches in height and five inches in width (Figure I). The greatest width and height were in the region of the left anterior superior spine. It was soft and irregular, the skin over it thin, warm, and bluish, and numerous large blood vessels with scattered firm tender areas, could be palpated through the skin. Hyperhidrosis was present over the mass. A thrill could be felt over the entire tumor, most marked at the inferior medial aspect, close to the femoral triangle. This

thrill was transmitted down along the femoral artery for several inches. A second strong thrill was palpated just medial to the anterior superior spine. Loud bruits were heard in these areas, transmitted more faintly to the entire tumor mass.

Firm pressure over the area of loudest bruit caused several significant and interesting phenomena. The mass shrank perceptibly in size and the pulse rate dropped from 92 to 80. The blood pressure rose from 126/82 to 132/84. The thrill could no longer be palpated. Rectal exam-



Fig. 1-A. Congenital arteriovenous aneurysm arising primarily from the superficial circumflex iliac artery and vein and secondarily from the deep circumflex iliac vessels. Tumor outlined with Gentian Violet. Fig. 1-B. Healed wound four weeks following operation

ination revealed no evidence of thrill or pulsation within the true pelvis. There was no difference in size or length of the legs.

Laboratory data revealed a negative Kline and Kahn, negative urine, normal blood count, bleeding and coagulation times. Electrocardiogram revealed only a slight sinus tachycardia. There was no enlargement of the heart by X-ray. Arteriograms showed pooling of the dye in the inferior medial angle of the tumor with extension inferiorly into a vascular channel, probably the femoral vein.

The patient entered the hospital on September 16, 1941, at which time most of the laboratory work was performed. She consistently ran a low grade of fever and it was felt that she had some degree of thrombophlebitis. Dr. John McGreer, director of the X-ray laboratory at the Miami Valley Hospital, saw her and advised a course of deep X-ray therapy in the hope that it would aid the phlebitis and also diminish the size of the tumor despite its long duration.

Treatment given by Dr. McGreer consisted of a total of 945 Roentgens at a rate of 315 Roentgens per treatment from September 23 to 30, 1941. Factors were 140 KV, 25 MA, 50 CM, TS. Inherent filter of 0.25 mm. of copper plus added filtration of 1.0 mm. aluminum was used. The half value layer is 0.15 mm. of copper.

On November 11, 1941, two months later, she was readmitted to the hospital. On examination, the tumor had shrunk three inches in length, one inch in width and about one-half inch in height. The patient stated that she had had no pain or discomfort for four weeks and that for the first time in years she was not conscious of the mass. The bruits and thrills were still present as were the changes of pulse and blood pressure on pressure over the area of greatest thrill.

Operation was performed on November 12, 1941, with a diagnosis of congenital arteriovenous

aneurysm arising from the circumflex iliac vessels. An incision was first made over the femoral triangle and a ligature inserted beneath the femoral artery just as it emerged from under Poupart's Ligament (Figure 2). This was held loosely throughout the operation to control excessive hemorrhage if necessary. The superficial circumflex iliac artery and vein along with several accessory veins were found enormously dilated. These ran separately for a short distance, then disappeared into a large tortuous mass of pulsating throbbing vessels which spurted dark red blood when cut. A marked thrill was present at this point.

The skin incision was next carried up along the superior border of the tumor to its posterior angle at the mid-lateral aspect of the iliac crest. The incision was deepened to the external oblique muscle and fascia and the entire tumor reflected inferiorly over the crest. Just medial to the anterior superior spine the deep circumflex iliac artery and vein were clamped as they emerged through the fascia. These vessels were also greatly dilated.

A second elliptical skin incision was made along the inferior border of the tumor, and the entire mass removed en bloc including the overlying skin. At one point the fascia lata was severed to remove an invading group of vessels; the remaining vascular elements were superficial to the deep fascia.

The skin was next undermined thoroughly and united under considerable tension with inter-

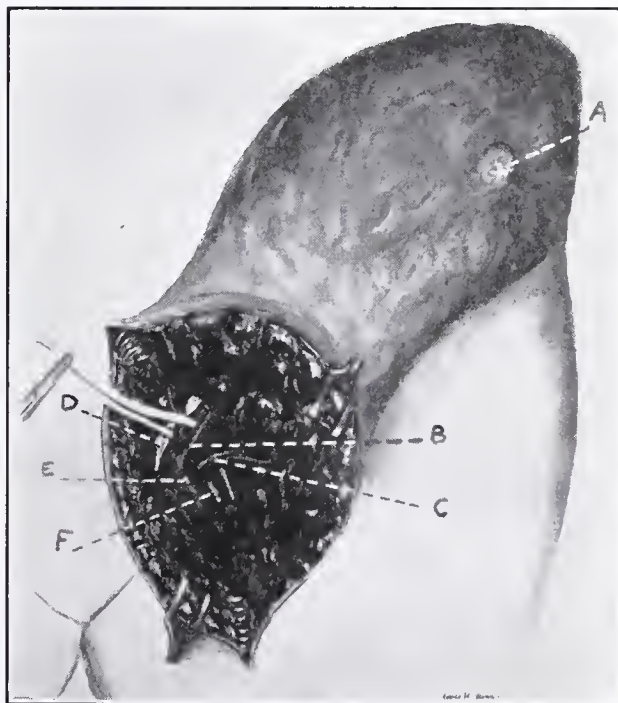


Fig. 2. Initial stage in operation. The ligature is around the femoral artery. (A) Anterior superior spine, (B) Superficial circumflex iliac vein, (C) Superficial circumflex iliac artery, (D) Poupart's ligament, (E) Femoral vein, (F) Femoral artery.

rupted silk. Five hundred cubic centimeters of citrated blood were given at the close of the operation which had been performed under light gas anesthesia. Healing was by primary intention although considerable serious drainage was encountered. The patient was discharged on the nineteenth postoperative day with complete healing.

The pathology report, by Dr. Melvin Oosting, director of the Diagnostic Laboratories at the Miami Valley Hospital, was as follows:

The surgical specimen consists of an elliptical shaped mass of tissue covered in part by skin which measures 23x12x4 cm. On palpation many firm cherry size nodules are felt through the skin and a general feeling of "a bag of worms" is noted. The under surface of the tissue shows multiple varying size blood vessels, the largest having a diameter of the average lead pencil. On section these vessels course throughout the tissue and anastomose freely. At the point of anastomosis of many of the larger vessels there is increased fibrous tissue together with calcium deposits. There appears to be one main vessel entering and leaving the tissue between which lie the anastomosing vessels. This has the gross appearance of a cirroid aneurysm.

Microscopic sections, stained with hematoxylin and eosin, reveal a large plexus of dilated blood spaces, medium size and small veins, and medium size and small arteries. The walls of the blood vessels show diffuse phlebosclerosis and arteriosclerosis. In many areas the supporting connective tissue and fat tissue show hyalinized fibrosis and patchy lymphocytic infiltration. There are also small calcium deposits and new bone formation indicative of a healed infectious process. The microscopic picture is that of a congenital arteriovenous fistula associated with a congenital hemangioma cavernosum in which metaplasia to bone formation has occurred due to infection. There is no evidence of malignancy. These tumors are prone to recur unless completely eradicated by surgical means.

The patient was last seen one month following dismissal from the hospital with complete wound healing (Figure 1-B). She left the city at that time to resume her college studies. Her blood pressure was 120/80, pulse 80, and the cardiac murmur had completely disappeared.

DISCUSSION

A search of the literature fails to reveal any case of congenital arteriovenous aneurysm arising from the superficial circumflex iliac vessels. Operation revealed the characteristic type of multiple anastomotic channels between arteries and veins, which undoubtedly extended between the arterioles and venules, with arterialized, pulsating blood spurting from every cut vessel. Fortunately the cardiac enlargement so frequently seen with arteriovenous aneurysm had not developed as yet.

The treatment of choice in congenital arteriovenous aneurysms is complete surgical excision of the mass of dilated vessels. Where an extremity is involved, amputation is usually necessary because of the multiple minute anastomoses, and because these patients seldom seek medical attention early enough to make feasible more conservative treatment. In the acquired form, where the communication is usually single, spontaneous healing will rarely develop after several months. If not, this delay will be adequate for the development of good collateral circulation and complete healing of the wound. Extirpation of a portion

of artery and vein including the fistulous tract appears to be the most successful method of treatment providing the collateral circulation is efficiently established.

The superficial position of the tumor in this case, in an area which could easily be struck or bruised, presented the constant possibility of injury with subsequent fatal hemorrhage. The low grade fever which she constantly ran prior to X-ray treatments, together with the scattered firm and tender areas palpable throughout the mass, appeared to be conclusive evidence of localized chronic thrombophlebitis.

The aid given by the X-ray treatments was invaluable. The tumor definitely was smaller in size and surgically more accessible. The patient's temperature was normal on readmittance to the hospital, indicating a satisfactory response of the phlebitis to X-ray. No difficulty was encountered with fibrosis secondary to X-ray. Wound healing did not appear to be delayed.

The diagnostic value of arteriography has been emphasized by Veal and McCord⁵ who also stress the importance of oxygen saturation determinations of the blood adjacent to the suspected anastomosis in doubtful cases. Arteriograms in our case were of little value, probably because of the extreme size of the vascular elements with resultant pooling of dye in the large blood sinuses.

CONCLUSION

A case of congenital arteriovenous aneurysm arising primarily from the superficial circumflex iliac artery and vein and supplied secondarily by the deep circumflex iliac vessels is presented. No previous report has been found in the literature of a congenital aneurysm involving these vessels. Treatment consisted of a series of deep X-ray treatments followed by complete surgical excision of the abnormal vascular elements.

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Pitfalls In Occupational Disease Diagnosis

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INDUSTRIAL medicine and toxicology is a highly specialized branch of medicine in ordinary times, but now in war times it is one of the most rapidly advancing fields in all medicine. The use of synthetics, new halogenated hydrocarbons, plastics, higher alcoholic derivatives, methylated and ethylated derivatives of hydro-carbon alcohols, together with amid and polymerized compounds; some of which the toxicity is not definitely known as yet, give all of the industrial physicians today some headaches. The industrial physician today must know his chemistry, he must be able to put the substance in structural form, break it down into molecular units or its oxidation products and determine its toxicity both internally and externally.

The greatest pitfalls in diagnosis in occupational disease is the absence of knowledge of the substance or substances in question. Many diagnoses are made erroneously because the true facts are not known, and the person attempting the diagnosis is not familiar with the various substances that are used in industry. It is very easy to say a person has di-ethylene chloride poisoning because they use it in the factory; or a tachycardia is due to a solvent; or the nausea is due to arsenic poisoning, phosphorus or some methylchloride solvent which is used in some process, but the industrial toxicologist will not accept this. He must have scientific proof, such as history, physical examinations, blood tests, urinary tests, skin tests and other laboratory data.

In war times production is greatly increased and many new hazards develop as a consequence of the following:

1. Use of new materials such as various plastics, synthetic rubber, new alloys, solvents and explosives.
2. Increased use of various cutting oils to which some substance has been added. (A great cause for dermatitis.)
3. Use of sand in replacing steel shot for blasting.
4. Spraying of various paints has been increased.
5. Grinding operation on various metals and new alloys.
6. Increased production in plating and oxidizing.
7. Increased production of explosives and nitro-cellulose derivatives.

In the field of dermatitis there are many pit-

falls and the industrial physician should make daily use of the patch test.

Of the list of occupational diseases recognized by the State of Ohio, very few should be a pitfall if a thorough study of the case is made, but with the advent of war industries, development of new substances and the use of chemicals previously regarded as museum specimens, the industrial medical man must do a great amount of experimenting and research. There have been volumes written on lead, arsenic, phosphorus, antimony and the various metallic poisons, as well as benzine, toluene, carbon tetrachloride and other similar solvents, but there are over 200 new substances being used today about which there is little or no information available. The information concerning these must be obtained by experiment and research.

In England, over 200 various industrial organic solvents are being used and a large majority have had some report made on their toxicity.

In avoiding pitfalls, we must make a differential diagnosis, obtain all data possible and make our diagnosis on facts and not on impressions. One would not diagnose psoriasis as "rubber itch" if we knew there was no such thing. Would you remove an appendix if you knew the individual had lead colic? Would you diagnose a case of carbon-tetrachloride as gastric ulcer or gastric nervosa? Would you diagnose a case of lymphatic leukemia as benzol poisoning? You surely would not if you had all the chemical and clinical data, but such diagnoses have been made. These are pitfalls. In our present day rush we are forgetful of the hazards of the industrial worker.

The ventilation should be controlled, the concentration of fumes and solvents should be kept at a minimum—for example, we know that if the concentration of benzol is kept around 75 parts per millum the worker can safely work eight hour periods with no trouble. Or if carbon tetrachloride or di-ethylene chloride is kept between 75 and 100 parts per millum, no difficulty will be experienced, otherwise a pitfall develops.

In reviewing many reports, industrial dermatoses seem to lead in frequency, especially in the war industries, and this is due to many of the following:

1. Increased machine work necessitating the large use of cutting oils, some of which are solfonated and chlorinated and are broken down by the tool heat into substances which cause dermatitis. To be sure of your diagnosis, sample and analyze the oil and its preservative. Some

Note—One of a series of editorial summaries on Industrial Medicine in time of war. Written at the request of the Editor.

Lithopedion: A Case Report

LEONARD H. BISKIND, M.D., SEABURT GOODMAN, M.D., and
DANIEL S. WERTHEIMER, M.D.

LITHOPEDION is a rare condition that has been known for more than 350 years; a case was reported as early as 1586¹. It represents one of the end results of an abdominal pregnancy or of a tubal pregnancy in which the fetus has been expelled into the abdominal cavity. Following death of the fetus, it becomes mummified and later calcified to a greater or less degree.

The classification of the forms of lithopedion now in use was established by Kuchenmeister² in 1881. This author distinguished three types: (1) Lithokelyphos, in which the calcification is limited to the fetal membranes; (2) Lithokelyphopedion, in which both fetus and membranes are calcified; and (3) Lithopedion, in which the fetus alone is infiltrated with calcium salts. The latter term is also used in a more general sense to include all three forms.

Patients have been known to carry a calcified fetus for many years without being conscious of its presence. Smith³ described a case in which such a fetus was removed from the abdomen of a woman 94 years of age, fully 60 years after its conception.

The presence of a tumor mass in the abdomen, and a history indicating the possibility of an extrauterine gestation of several months duration, may suggest the diagnosis of lithopedion. Confirmation may be obtained by roentgenologic examination, as fetal parts can thus be identified within the calcareous mass. When the history is vague or apparently negative with regards to a possible ectopic pregnancy, as it was in the case to be reported here, the diagnosis is likely to be missed unless a routine roentgenogram of the abdomen is made. In the case described here the patient was operated for multiple uterine fibroids and the diagnosis was not established until a pathologic examination was made of the removed mass.

Although numerous references to this condition were found in the literature,^{4,5,6} a review of the records of Mount Sinai Hospital since 1916 failed to reveal a single previous case.

CASE REPORT

E.D., a white female, married, aged 44 years, was admitted to the outpatient department of Mount Sinai Hospital on May 4, 1942. Her chief complaint was bleeding since her last period, the latter part of February. She continued to bleed until the day of her admission to the dispensary. Her menstrual history prior to her last period was negative. Her periods

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occurred every 28 days, lasted for four days; there was some dysmenorrhea the first day only. She had been married for 15 years and had had one pregnancy shortly after her marriage. The infant died at the age of one year from an obscure ailment. Other complaints of the patient

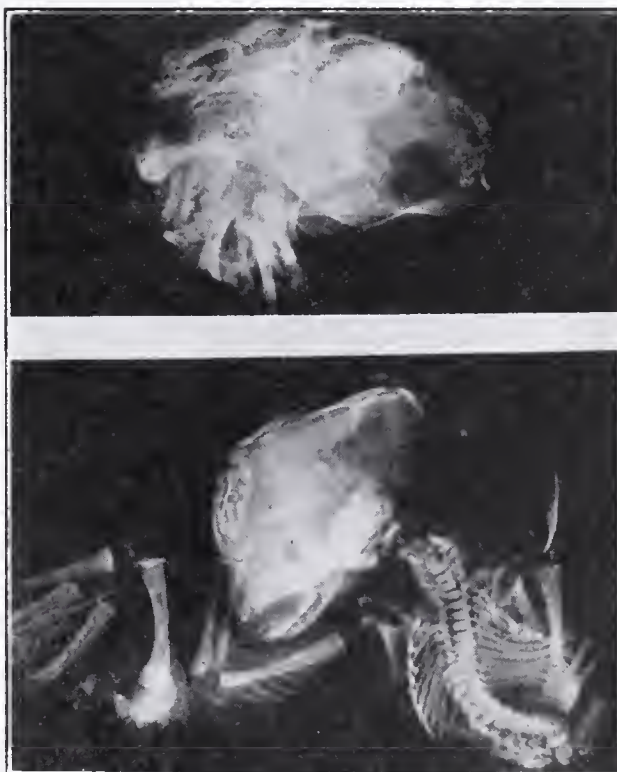


Figure 1. Gross appearance of lithopedion.

which appeared subjectively to be of relatively minor importance were occasional backache, some vaginal discharge and occasional pain in the lower left quadrant. At the time of the onset of her last period she had some slight nausea. Her past history was otherwise entirely negative.

Physical examination revealed a well developed, well nourished white female, not acutely ill. Her height was 63¼ inches, weight 107¼ pounds. Admission temperature, pulse and respirations were normal. There was a slight symmetrical enlargement of both lobes of the thyroid. The heart and lungs were normal. The abdomen contained a visible irregular mass, rising out of the pelvis, to the left of the midline; it was about the size of a four-months pregnancy. To palpation this mass seemed considerably harder

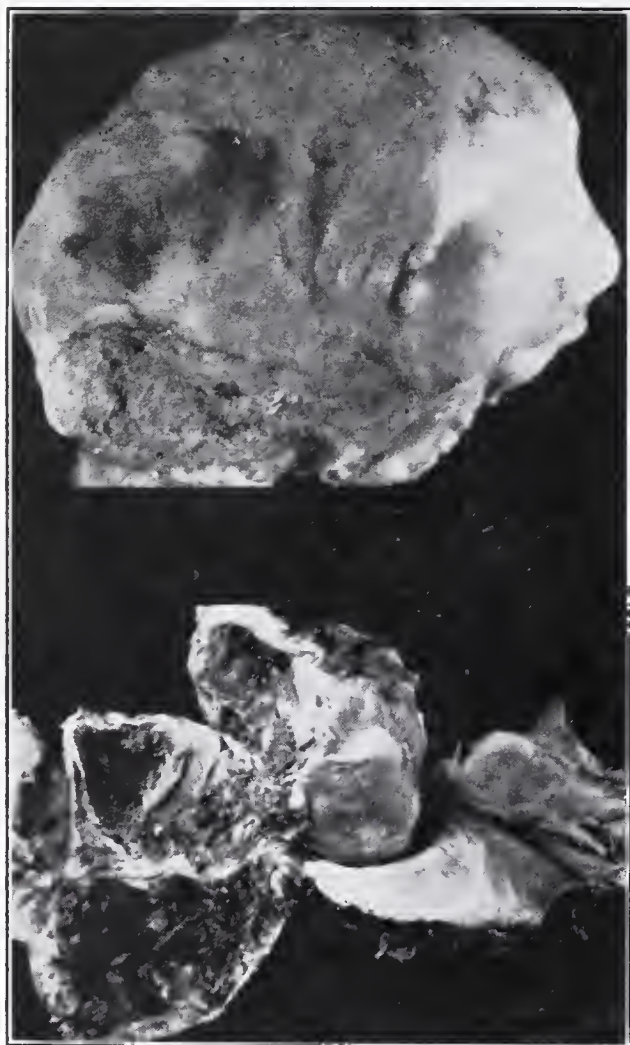


Figure 2. Roentgenogram of lithopedion, intact (upper view) and after separation of the major structures (lower view), showing the bony structures.

than that which ordinarily occurs with fibroids. The remainder of the abdominal examination was negative.

Vaginal examination revealed a marital introitus, no cystocele or rectocele. The cervix was in the axis and pointed downward. There were slight bilateral healed lacerations. The size of the fundus could not be determined as it appeared to be connected to a mass in the lower left quadrant which was hard, irregular and rather fixed. This mass obscured the left vault. A diagnosis of chronic cervicitis, multiple uterine fibroids and a simple goitre was made and the patient referred to the hospital for laparotomy.

Laboratory findings were as follows: Serology, negative; urinalysis, negative; leukocytes 7,450; erythrocytes, 4,410,000; hemoglobin 85 percent; basal metabolism rate, minus 4 percent; blood

chemistry: sugar, 95 mg. percent; nonprotein nitrogen 33 mg. percent; creatinine 1.5 mg. percent. The Friedman test prior to operation was negative.

Under general anesthesia operation was performed on May 19, 1942. The abdomen was entered through a midline incision. Inspection revealed that the omentum was adherent in many places to a mass the size and shape of a large fist in the left adnexal region. The adhesions of varying length and thickness, were carefully stripped away from the mass which when exposed was irregular on the surface, very hard to palpation and rather freely movable. One portion of the mass at the lower pole was imbedded in the anterior surface of the uterus at the left cornu, producing a rectangular depression. The mass was easily removed from the abdominal cavity after the adhesions were tied and severed. It could not be identified on inspection; both ovaries, tubes and the uterus were found intact. The operation was completed with the removal of the right tube and ovary and the appendix.

Gross and microscopic examination of the ovary, tube and appendix indicated the presence of multiple follicular cysts, recent corpus lutea, edema of the ovary, chronic salpingitis (slight), and chronic appendicitis (slight).

The separate mass of tissue measured 6x3x1.5 cm. and weighed 280 grams. The surface was smooth, hard and quite irregular. At numerous areas small omental tags were found. Before dissection a photograph and roentgenogram were made of the mass (figures 1 and 2). On dissection fetal parts were recognized. In one pole delicate black hairs were seen; closely adjacent to this point, a fairly well formed hand was found. In the same area a femur, knee joint, ribs and vertebral column could easily be identified. On incising the mass in its central portion remnants of the head were seen in which an eye, the nose, teeth and jaw bones were identified. In addition, bones of both extremities, additional ribs and contents of the abdominal cavity were readily identified grossly.

Microscopic sections taken from the umbilical cord shows marked autolysis. Still recognizable were outlines of blood vessels, apparently the umbilical veins and arteries. Other sections taken from various portions of the fetus also showed autolysis and in many instances the organs were not recognizable. Phantoms of voluntary muscle and fibrous tissue could be seen while other sections showed considerable deposits of calcium.

Postoperatively this patient's course was uneventful. She was discharged from the hospital on May 31, 1942, in good condition. She reported back to the outpatient department on June 24, 1942, where on examination, pelvic findings were negative.

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Control of Impetigo in the Newborn

J. K. HOERNER, M.D.

JUST as the birth rate jumped prodigiously in 1917 on the eve of our first involvement in the first world war, so it has again jumped to a new high as war threatened and finally materialized. There are many reasons for the increase. The tremendous improvement in the economic position of the mass of people who earn a living by wages has made it possible for many young people to marry who had previously procrastinated on this important step in life through fear of economic failure. Others already married have decided they can now afford their first child. Still others who have a child or children have come to the conclusion that now another child may be brought forth without economic strain. A few have deliberately married and started reproduction in the hope of obtaining deferment of military service. Still others have fully expected to serve their country but have married just recently to enjoy a short period of companionship before having to go, or to insure having the mate of their choice on returning from service. Others have felt that they wanted to live life to its fullest and leave something of themselves behind in case they never returned.

Undoubtedly a small number have been influenced by the psychology of the times and have thrown all restraints to the winds. From whatever cause or reason the results have been the same, namely that our birth rate has risen considerably. (Fig. 1). In Dayton another factor enters the picture and that is a sudden sharp increase in population brought about by the marked expansion of our government air fields and the many new plants along with the old who are engaged in the manufacture of war materials.

Since we have had no new additions of hospital space during the past eight years and since the percentage of births in the hospitals has increased annually, we find ourselves suddenly overwhelmed in our maternity departments with the largest volume of work we have ever had to face.

To this physical overcrowding must be added the difficulties of obtaining and keeping sufficient personnel to properly conduct the work. The paternalistic efforts of our government to care for the unemployed has undoubtedly undermined the will to work on the part of many people who at one time were very satisfactory hospital aids.

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-sixth Annual Meeting, Columbus, April 28-30, 1942.

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Industry and business generally have absorbed the best of employables since higher wages, shorter hours of work and the many other inducements of social and economic nature tend to draw and hold the best workers. Hospitals, therefore, find considerable difficulty in filling their accessory work staff with adequate personnel.

The nursing staff has likewise suffered. Many trained nurses have answered the call to serve with the medical departments of our armed

FIGURE I

	1930	1935	1940	1941
Dayton	3,642	3,453	5,020	5,953
Miami Valley Hospital.....	1,325	847	1,410	1,568
St. Ann's Maternity.....	1,021	1,005	1,599	1,923
(1932)				
Good Samaritan Hospital.....	175	453	1,292	1,774
Cases of Impetigo-G.S.H.		2(?)	18	92

forces. Industry, on the hum, has taken others. The sharp increase in marriage and maternity has been another great depleting factor.

In view of all this it is readily apparent that the available medical, nursing and auxiliary personnel of our hospitals are completely engaged even if all the work runs smoothly. But if there is superimposed an epidemic of any kind which requires isolation technic, additional space and nursing care, the burden becomes excessive and tends to break down the whole machine. The doctors tend to take their work elsewhere and overcrowd other hospitals. The nurses become disgruntled over the great increase in work and either become ill from overwork and strain or quit their jobs for more pleasant duties, as do the non-professional hospital aids.

It is for these reasons that now, more than ever before, we need to avoid, prevent, or control the occurrence of such a highly contagious

nuisance as impetigo of the newborn. Accordingly I shall review the experience we have had with this disease and what we have done to solve our problems.

In Dayton at the Good Samaritan Hospital we have had a unique opportunity to study impetigo. Shortly after the hospital was erected and began operations in May, 1932 this disease made its appearance. At first the epidemics were short and involved only a few babies at a time, since the hospital was new, sparsely populated and a high ratio of available nursing hours to patient days existed. But as births increased and the nursery filled, the outbreaks became more serious and the repercussions increased. All sorts of treatments were employed depending on the ingenuity of the doctor whose case was involved, and we ran the gamut of lotions, ointments and antiseptics.

Since there was no general agreement on what we should do to control this situation, the chief of the hospital staff and the head of the obstetrical department made an inspection of the maternities of the Cincinnati hospitals to determine what others were doing to cope with this menace. At each place the nurse in charge of the newborns was interviewed and the routines employed were obtained. Most of the routines included the use of 2 to 5 per cent ammoniated mercury ointment inunction of the entire skin surface following the initial bath, and several employed individual sterilized packs of clothing for each baby daily. Another feature was nursery division which would reduce the number of babies exposed in case of an outbreak in any one nursery.

After full discussion and deliberation these suggestions were carried out. First our fifty bed nursery was divided into twenty and thirty bed nurseries. Individual packs were made up daily and sterilized. Each newborn was cleansed with oil, bathed with soap and water and then lightly anointed over its entire skin surface with 2 per cent ammoniated mercury ointment. It was then admitted to the smaller nursery, whence it was transferred to the larger room if no lesions developed by the end of the fourth day.

For a while we were free and everyone felt relieved. But our immunity was short lived. Another epidemic broke out in our larger nursery. The obstetrical staff then decided to try the so-called dry technic which had been reported so enthusiastically by several hospitals. Only the blood and meconium were gently washed away with sterile water and the vernix left undisturbed. When soiled diapers were removed, any clinging residue was gently removed with a mildly antiseptic oil. This simplified technic pleased the nurses but rendered the mothers

critical of the matted untidiness of their babies' hair. Again we enjoyed a period of freedom, but not for long, and the dry technic was dropped in favor of what seemed more modern and sensible, a daily cleansing bath with soap and water.

Our last epidemic of considerable proportions occurred in 1941 when we had 1774 babies and 92 indexed cases of impetigo. Many others developed their lesions after leaving the hospital so this figure is much too small. It began with the newborn son of a dermatologist and was finally brought under control by closing first one and then the other wing of the maternity for extensive cleansing operations and setting up a new nursery until the old ones had been completely evacuated and their contents scrubbed and sterilized.

Again we held meetings of the obstetricians, pediatricians, dermatologists and the hospital administrators, and even received a visit and many kindly suggestions from the state department of health.

From all this we developed the following changes which are still in use. First we reduced the crowding by setting up a third nursery. Next we gave up sponge bathing in favor of showers. And finally we began to use routinely 5 per cent sulfathiazole powder in a borated talc base. To this we added immediate isolation of both mother and child if any skin lesion is found. An accessory which may be contributing is a system of mercury vapor indirect lights throughout our nurseries. Since these arrangements have been in effect there has been only a few sporadic instances of skin lesions.

I do not feel that this is a perfect set up but it is giving better results than any other we have had to date.

When we were struggling with our problem Dr. Souther of the State Health Department sent me a reprint of an article entitled "Measure for Protection of Newborn Infants Instituted at the Long Island College Hospital", by Dr. Charles A. Weymuller, Professor of Pediatrics there. Epidemic infectious diarrhea of the newborn, which had appeared in the nurseries of a number of the New York hospitals had been the inciting cause producing the adoption of these measures and the appearance of this article. However, all of its principles apply equally to the prevention and control of impetigo. I was so impressed with the soundness of his views that I visited the institution and was shown the plan at work by Dr. Beck, professor of obstetrics there. Briefly the care is as follows:

At birth the baby is cleansed with mazola oil and anointed with 1 per cent ammoniated mercury in a base of 10 per cent lanolin, 50 per cent cold cream, and 40 per cent vaseline. Six hours later and daily thereafter it receives a soap and water bath with unscented palm olive soap.

After the initial cleansing it is assigned to an eight bed nursery where one nurse is in complete charge and keeps a permanent record of the child during its hospital stay. The eight cribs are separated by six or more inches and each has a full day's supply of sterilized garments on a shelf beneath. Adjacent to the crib room is a narrow room divided in half. The outer half is a utility room and the inner half next the hall is the doctor's examining room. Doctors don cap, mask, gown and gloves before checking babies. All feeding materials are sterilized before leaving this unit and taken to a central room for refilling. The room is like an operating room and the worker prepares herself as for an operation. A large sterilizer extends through a wall to an anteroom where all equipment is brought in and placed in the sterilizer, to be removed on the inside after being sterilized. The bottles are filled, nipples applied and covered with glass caps and put in individual racks for each nursery. They are passed out over a Dutch door and taken in a closed cart to their appropriate destination and placed in refrigerators there.

If any baby develops any type of infection it is isolated in a nursery far removed from the original unit, and the unit from which it came is considered contaminated. No new babies are admitted until it is emptied and then it is scrubbed with soap and water, and aired for 24 hours. All mattresses and cribs are specially treated. Babies returning from ritual circumcision are placed in an intermediary isolation unit until discharged.

Ward visiting is limited to five hours a week and then ropes are stretched along the foot of the beds as barriers, and visitors must wear masks and gowns.

I talked to the resident pediatrician who is finishing his third year there. He had only seen two cases of suspected impetigo in that time. About 1500 deliveries a year occur in Long Island College Hospital.

While in New York I also visited Cornell University where I had been informed they had considerable trouble with impetigo. The fact I obtained from the resident on obstetrics, Dr. Leston E. Fitch, who had made a careful study of an epidemic lasting from Oct. 29 to Nov. 25, 1941, involved a total of 19 babies. Of these ten were definite, four suspicious and five not impetigo at all. The epidemic was controlled by prompt isolation of the babies and extensive cleansing operations on the two nurseries involved before opening them again. There had been no further cases in three months. At the time they were using ammoniated mercury ointment which on examination showed that gross crystals of the salt had not been properly worked into the base. This had stuck in groins and axillae and produced irritations which subsequently became infected. Now they are experimenting with different technics. One nursery's babies get an initial oil bath and nothing more. In three other nurseries the babies get an initial neutral castile soap and water bath, then

daily oil baths of 1) Johnson's oil, 2) Squibbs oil, and 3) Squibbs baby lotion. About 3000 babies a year are delivered in this hospital.

SUMMARY

It can safely be said that the control of impetigo is largely a problem of nursing and hospital administration.

The hospital administration should be willing to provide adequate facilities, and police the maternity against the menace of visitors. The nursing office should provide keen supervisors and sufficient nurses for individual care of babies to the extent of one nurse to eight babies, and insist on immediate and careful isolation technic being carried out at the first sign of skin disorder. Attending physicians should be willing to abide by technics set up by the hospital administration, such as donning cap, mask and gown and washing hands before examining any baby.

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Health of Resident Physicians

The health of doctors living in hospitals is an important matter. It deserves careful consideration. Each medical student on graduation from his medical school should receive a card giving a complete report of his tuberculin test and roentgen examinations. Each hospital should make a rule to continue with this record by requiring chest films of its interns at six-month intervals. Large hospitals dealing with vast numbers of patients should go even further. They should require their interns and residents to have chest films at three-month intervals. If a rule of this sort were made general, tuberculosis in the resident staff would be recognized more quickly than it is at present, and unnecessary loss of time spent in treatment would be saved.—Reginald Fitz, M.D., *Jour. Amer. Med. Assn.*, Sept. 27, 1942.

Treatment of Pityriasis Rosea

GEORGE W. BINKLEY, M.D., Cleveland, Ohio

TRANSLATED literally from the Greek, pityriasis means bran, an eruption characterized by branny scales; and from the Latin, rosea is rosy or red. "Red scale" is a barren objective description of the cutaneous changes and gives no information as to the type of disease, but must remain the accepted designation as long as the causation is unknown. As yet December, 1942 medical research has not disclosed an infective agent.

In my experience and from the published tables of incidence, in urban communities, pityriasis rosea is of common occurrence during its seasons. These are early spring and fall. When one case of pityriasis rosea is seen, always other cases appear. In a matter of months, few new cases are found and the peak of incidence is over. However, during the other months of the year sporadic cases of pityriasis rosea are seen.

Pityriasis rosea is a mildly inflammatory reaction in the superficial skin, characterized by discrete and sometimes confluent, plain or circinate salmon-tinted, pinkish or pale red, variously sized papules and macules. The lesions soon become scaly. The scale separates centrally and spreads towards the edges. The lesions are most abundant on the trunk, the arms, and the thighs. A herald, or mother, patch may be found. The patient is usually unaware of the presence of the mother spot, which appears one or two weeks before the disseminated eruption.

The management of pityriasis rosea is not difficult in those cases which are not complicated by severe itching. However, it is necessary at the first visit to give the patient an interpretation of his rash. I proceed as follows, "The rash you have is not syphilis. I will take a blood test as part of a routine examination only. Pityriasis rosea, which you have, is a harmless eruption which will not affect your general health in any way. It is not contagious. You will not give it to anyone. You will lose no time from work, and the rash will be gone in four to six weeks. The

cause of this harmless rash has not yet been discovered, therefore it is not known how one gets this breaking out."

TREATMENT

External treatment is of two types: (1) Irradiation therapy with one of the sources of ultraviolet or sunlight; (2) Local applications adjusted to the type and stage of the cutaneous reaction. Ultraviolet therapy can be given with a cold quartz lamp or the hot quartz mercury arc lamp of the Hanovia type. The dosage is an erythema given every four to seven days to all skin areas involved. In fact, in an early case it is a good plan to anticipate that the eruption will extend to the elbows and to the knees. Thus, the torso, and upper and lower extremities should receive irradiation at the first visit.

The erythema time of ultraviolet given by the ordinary or hot quartz mercury arc lamp will vary with the following factors: the type of apparatus, the strength and age of the burner, the distance from the skin. The susceptibility of individuals varies. Brunettes as a rule tolerate ultraviolet and sun better than blonds. Before giving the first ultraviolet treatment ask the patient if he sunburns easily.

Clinical calibration of a new lamp will yield the exact information as to the factors to be used with the particular burner. The flexor surface of the forearm, because of its sensitivity, is used as the test site for determining the factors to be used in treating larger areas.

The forearm is covered with brown paper in which are three 1½ to 2 inch square openings. After the hot quartz lamp has warmed up—two to four minutes, thus reaching its maximum and a constant output—single squares of skin are exposed to 20 seconds, 40 seconds and 60 seconds at the same distance of 30 inches. The erythema time is then determined by the observation of the resulting reactions.

Among the necessary precautions are the protection of the eyes of the patient and, if necessary, of the operators with dark glasses. A conjunctivitis or even keratitis may result from a single exposure or from repeated small exposures given at short intervals. Accuracy must be maintained in measuring distances and in timing the exposures. For hot quartz lamp treatments, a timing clock with a loud automatic alarm ring should be used. Overexposure can produce exceedingly harmful effects.

Note:—Dr. Binkley was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

From the Department of Dermatology and Syphilology, Western Reserve University.

*For a complete review of Pityriasis rosea, covering common errors in diagnosis, etiology, incidence, symptoms, and morphology, see *Pityriasis rosea*. George H. Curtis, M.D., Cleveland, Clinic Quarterly, 6:29, Jan. 1939.

The factors for a cold quartz lamp can be determined by testing the skin of the forearm with various times (10 to 15 seconds) at the same distance of 6 inches; choose the time which gives an erythema in about six hours after the treatment.

If sources of ultraviolet are not available, daily exposures to bright sunlight at mid-day for 30 minutes, increasing by five minutes each day, will bring about the same results as ultraviolet light. Usually the eruption is on the wane in ten days.

In the early pityriasis rosea, especially the vesicular type, before dryness and scaling begin, the following lotion may be used:

Lotio Calaminae Phenolata N.F. VII

R	Metric
Phenol. Liq.	1.8 cc.
Calam. Praep.	14.4 Gm.
Zinc. Oxid.	14.4 Gm.
Glycerin	3.6 cc.
Magma Benton.	72.0 cc.
Liq. Calc. Hydrox. ad.....	180.0 cc.
M. et Sig. Shake. Apply externally with a gauze pledget two or three times daily and allow to dry.	

Three to five per cent of liquor carbonis detergens may be added to this lotion for increased antipruritic action.

In later stages, and when pruritus is marked, a liniment is preferred:

R	Metric
Phenol Liq.	1.2 cc.
Menthol	0.15-0.3 Gm.
Lin. Calam. N.F. VII	
	q. s. ad 120.0 cc.
M. ft. lin.	

Sig. Apply externally as needed for itching and dryness.

In cases with itching so severe that it interferes with sleep, it is desirable to use pentobarbital sodium, metric; 0.10 gm. or apothecary; 1½ grains, or amytal; 0.10 gm. or 1½ grains at bedtime. Lukewarm starch or bran baths are soothing. Cornstarch baths are prepared by stirring between ½ to 1 lb. refined, soluble cornstarch into a tubful of water. Starches are made soluble through hydrolysis, for example, by boiling. Linit starch for the bath is a brand of finely divided, soluble cornstarch. Use unperfumed. Continuous wet dressings of solution of aluminum acetate N.F. diluted with nine parts of water may be used.

It is usually unwise to use sulfur ointment, chrysarobin or other strong or stimulating preparations in treating pityriasis rosea. The milder and simpler the treatment, the better.

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Allergy In Hearing Defects

Our information on the subject of the relation of allergy to ear and hearing difficulties is incomplete. This question has been studied only for the last fifteen years, but many articles and much compilation of effort has been built up in this time, each effort tending to clarify more and organize better the many observations and abundance of factual information that has accumulated. In the past few years we have become increasingly confronted with hearing difficulties that did not fit well into the usual category for analysis and in cases that were also allergic; there seemed to be a definite improvement in hearing when the patient was placed under allergic management. Then with some stimulus our interest led us to consider allergy as a factor to be thought of in cases of deafness or declining hearing. We noted some types of deafness that seemed to be aggravated by allergies and some ear pathologies that seemed to have a superimposed allergy. Many children who had been tonsillectomized and had their adenoids removed on account of hearing difficulties and who greatly improved immediately following the operation but subsequently relapsed into the same hearing difficulty were found to be allergic, and an attempt to evaluate these findings and deductions led us to a study of the entire group of cases.

SYMPTOMS

The most characteristic symptom that we noted in this series of cases was their variability, both as to presence and intensity from day to day and hour to hour. The following were noted:

1. Fullness of one or both ears.
2. Loss of hearing or dullness of hearing.
3. Deep dull pain in ear.
4. Itching in back of nose and between the nose and ear.
5. A tinnitus, vertigo, or nausea.
6. Tightness and drawing in the ear.
7. A deep burning in the ear.

DIAGNOSIS

If a patient presents himself with a change in his hearing that is variable and with some of the symptoms mentioned above, our audiogram and the patient's feeling, as far as the ears are concerned, is compared with one made twenty minutes after a hypodermic injection of adrenalin. If there is a change in the hearing and the feeling of the patient's ears subjectively, we consider the allergic influence to be great enough to warrant an investigation from this standpoint. We may also find a positive nasal secretion eosinophilia or a blood eosinophilia confirming it.—Hugh A. Kuhn, M.D., Hammond, Ind.; Jour. Ind. S.M.A., Vol. 36, No. 3, March, 1943.

Pulsating Tumors of the Sternum and Occiput Due To Metastatic Carcinoma of the Thyroid Gland

WILLIAM E. MOLLE, M.D.

PULSATING tumors of the sternum are of sufficient rarity and interest from the point of view of differential diagnosis to justify a brief review of the literature and report of one case.

Hedblom¹ in 1921 wrote an article on tumors of the bony chest wall and in discussing the differential diagnosis of sternal tumors says, "pulsating sarcoma may stimulate aneurysm" but he reported no cases. Heuer² in 1932 collected 38 tumors of the sternum, seven of which were secondary metastatic hypernephromata, one by biopsy and one at necropsy. In the third case no positive diagnosis was made.

Crile³ in an excellent review of the literature in 1936 collected 10 verified cases and three probable cases of pulsating neoplasm of the sternum. In the cases verified histologically, in five the tumors were metastatic from hypernephromata and in the other five metastatic from malignant adenomata of the thyroid. In three cases, histologic studies were not made, but descriptions of the clinical course made it highly probable that the tumors were metastatic from either hypernephroma or small, undetected malignant adenomata of the thyroid. He found that no case of verified pulsating sarcoma of the sternum had been reported.

Review of the literature since Crile's report reveals only one additional report of a pulsating tumor of the sternum by Roth and Davidson.⁴ In this instance it was secondary to renal hypernephroma.

The following verified case is apparently the sixth to be reported of pulsating tumor of the sternum due to metastasis from malignant adenocarcinoma of the thyroid gland. In addition, a pulsating tumor mass was present over the occiput.

CASE REPORT

J. D. (Hospital No. 137851) was first admitted to the Cincinnati General Hospital on March 18, 1933, at the age of 64 because of marked enlargement of the thyroid gland, apparently present for a number of years. Six months prior to admission, difficulty with his breathing appeared and he noticed "choking spells" at times. It was this symptom that prompted his appearance at the hospital.

He was examined by Dr. Roger Morris, who

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● Dr. Molle, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1939; assistant resident in medicine, Cincinnati General Hospital; assistant in medicine, University of Cincinnati College of Medicine.

found bilateral enlargement of the thyroid gland. The right lobe was superficially more prominent than the left and contained a very firm, roughened, apparently calcified mass, which was movable. The left lobe was deep and seemed to extend beneath the clavicle. There was no exophthalmos or evidence of toxicity. The trachea was markedly shifted to the right and compressed, this finding being confirmed by roentgen ray examination. Laryngeal examination, however, revealed no paralysis of either vocal cord.

The only other finding on examination was auricular fibrillation, confirmed by electrocardiogram tracing.

On May 3, 1933, a partial double lobectomy was performed by Dr. M. Zininger of the Surgical Service, and the patient made an uneventful recovery. The left lobe was adherent inferiorly and only a portion of it could be resected.

The preoperative diagnosis was non-toxic adenoma of the thyroid, but microscopic examination of the removed gland revealed masses of large light staining epithelial cells, tending to form acini. These cells were definitely invasive and mitotic figures were numerous. Several calcified areas were visible. The discharged diagnosis was adenocarcinoma of the thyroid gland and roentgen ray therapy was resorted to post-operatively. There is a record of only one X-ray treatment and the number of roentgen units are not recorded.

He was discharged on May 19, 1933, and readmitted to the Cincinnati General Hospital on February 6, 1940, on Ear, Nose and Throat Service, by whose courtesy this report is made, because of laryngeal obstruction. Indirect laryngeal examination revealed paresis of abduction of both vocal cords and a very small airway. Emergency tracheotomy was performed and the postoperative course was uneventful.

Examination at this time disclosed two masses the size of a plum over the manubrium of the sternum and the occiput. These were firmly attached to the underlying bone and were pulsatile. The skin was freely movable over both masses. The pulsations were expansile in type and not transmitted. No bruit was heard.

The patient could not talk and in addition was deaf precluding the possibility of any history.

Submitted August 6, 1942.

From the Department of Internal Medicine, University of Cincinnati and Cincinnati General Hospital, through the courtesy of the Ear, Nose and Throat Clinic.

X-ray examination of the skull on February 12, 1940, revealed some irregularity of the bone in the occipital region under the tumor mass, with some calcification adjacent to the bone in this area. Nothing definite was seen in the sternum and the lung fields were clear. A large, soft tissue density was seen in the upper anterior mediastinum, suggesting a substernal thyroid.

Several days later Dr. S. Iglaue performed an indirect laryngoscopic examination and found the left vocal cord fixed and in the mid-line. The right cord was also in the mid-line. The right arytenoid flapped backward and forward with respiration. The left was dislocated into the larynx. His diagnosis was complete paralysis of the left vocal cord with paresis of the right cord. The diagnosis at this time was carcinoma of the thyroid gland with multiple bone metastases and the vocal cord paralysis was considered to result from involvement of the recurrent laryngeal nerve by the carcinomatous tissue.

Repeat roentgen ray examination on May 1, 1940 showed definite erosion of the right side of the manubrium. Lateral views revealed most of the erosion to be on the anterior surface.

His condition and that of the pulsating tumors were not altered until February, 1941, at which time he gradually became more emaciated and the occipital mass increased in size. The bone appeared to be piled up about the mass and a definite defect in the bone beneath the tumor was discernible clinically. A cystic mass appeared at the base of the neck and increased in size until it caused some tracheal compression. This gradually became larger during the last months of his life and eroded away the manubrium separating it from the sternal tumor.

He gradually became weaker and the tracheotomy progressively grew more ineffective. He died on November 4, 1941, probably as a result of tracheal compression.

The autopsy was performed by Dr. C. Cobern seven hours post mortem.

The positive findings included a depression two centimeters in diameter in the occiput beneath the occipital tumor, which was a soft red mass 2x2x1 cm. in size.

The tumor at the level of the manubrium measured 16x8x7 cm. and had eroded through the manubrium the distal ends of the first two ribs and distal end of the clavicle. The mass was solid, moderately firm and dark red. On section it presented a bloody cystic soft surface with areas of firmer red tissue containing colloid substance. There was a large cystic soft thyroid gland which continued directly into the tumor mass described above. There was evidence of compression of the trachea by the tumor mass.

Metastases similar grossly to those described above appeared in the mesentery near its attachment to the liver the superior pole of the right kidney, on the inner aspect of the base of the skull, and in the lungs.

Microscopically, the tumor was characteristically an adenocarcinoma very similar in appearance to the tumor removed in 1933.

The pathologic diagnosis was adenocarcinoma of the thyroid gland with extension through the sternum and metastases to the lungs, skull, kidneys and mesentery.

COMMENT

In the older literature, such cases were clinically considered to have aneurysm of the aorta. Today, with roentgen ray examination it should be possible to readily differentiate aneurysm of the aorta from the tumor metastatic to the sternum. Aneurysms of the internal mammary artery may be confusing but present themselves lateral to the sternum. Primary pulsating tumor of the sternum has never been reported.

Therefore, a pulsating tumor of the sternum will almost invariably be found to result from metastasis from a renal hypernephroma or a malignant adenoma of the thyroid and proper search should be made for the primary site.

Bone metastases are common in carcinoma of the thyroid, according to Simpson.⁵ He states that the vertebral bodies and cranial bones are most frequently involved and that pulsation is a common finding. He states that these osseous metastases show fluctuations in size during menstruation and pregnancy. Rienhoff⁶ states that aside from the lungs, the skeletal system is most often invaded by metastases from carcinoma of the thyroid gland, and lists the cranial vault and sternum as most frequently involved. Furthermore, the duration of the lesion in this case is apparently not unusual for adenocarcinoma arising from an adenoma of the thyroid, in spite of the inadequate therapy.

Thus, according to Crile³ the average survival in one group of cases with malignant adenomata of the thyroid was 32.4 months. One patient survived 17 years after appearance of a metastatic sternal tumor, without therapy.

Bone metastases may also occur in neoplasms of the prostate and breast, but these do not pulsate.

TREATMENT

Therapy in these cases consists of either surgical removal or roentgen or radium irradiation. In view of the long survival and the difficulty of determining the presence of other metastases the more conservative therapy (irradiation) would seem desirable. This type of therapy can, of course, be expected to be of benefit only temporarily.

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An Uncommon But Characteristic Sign of Hyperthyroid Disease

HEDWIG D. LANG, M.D.

THE diagnosis of Graves' disease is the easiest diagnosis even for a layman, when the Merseburg triad (goiter, exophthalmus, tachycardia) and tremor are present. But there is hardly any disease where there are more errors in the diagnosis, when the more obvious symptoms as goiter and exophthalmos are absent.

Nervousness, tremor, rapid pulse and loss of weight may be found in early tuberculosis. Neurocirculatory asthenia may cause the same symptoms. There are some cases of cardiac failure where the differential diagnosis from hyperthyroidism is only possible by testing the amount of iodine in the blood or in the urine.¹ But this method is too difficult to be used by the general practitioner. Cecil² says: "the most reliable measure is the therapeutic test with iodine."³ Patients with Graves' disease invariably show marked improvement."

According to Wright's "Applied Physiology" this improvement lasts only a short time. (Routine method before thyroidectomy). If iodine treatment is continued for a longer time the clinical condition begins to deteriorate and leads to an exacerbation of the symptoms. Just as opium causes a retention of the contents in the intestine, the administration of iodine results in the retention and accumulation of colloid in the alveoli of the gland (constipation of the thyroid). The consequent rise of pressure in the vesicles temporarily inhibits the passage of thyroxin into the blood.

James H. Means⁴ recommends iodine as treatment late in the disease, but he says "that it is by no means easy to regulate. To use intelligently both careful observance of symptoms and metabolism determinations are necessary". That is why this method should be used only by the experienced clinician.

The cardinal symptom is the increased metabolic rate, which is the result of excessive secretion of thyroxin. But there are cases of hyperthyroidism in children and of atypical Graves' disease, where the basal metabolic rate is not elevated, the so-called "form fruste".

I believe therefore that we should try all tests for hyperthyroidism that are available, especially if they are comfortable for the patient and the practitioner and without any danger. Such a test is the electrocardiogram.

The work of the heart is increased in hyper-

The Author

● Dr. Lang, Columbus, Ohio, is a graduate of University of Vienna, 1909; member Association for Internal Medicine (Vienna); member junior medical staff, Grant Hospital, Columbus.

thyroidism, and the diastolic rest period is diminished. Thyroxin accelerates the heart by direct action on the myocardium. Partly the changes are due to the insufficient blood supply to the heart relative to the excessive work. Aside from sinus tachycardia, premature systoles, paroxysmal tachycardia or paroxysmal auricular flutter or fibrillation, there are certain other abnormalities in the contour of the electrocardiogram which generally disappear when the patient feels better and are increased when he feels worse. Iodine therapy reduces or abolishes them.

Such a change is the large amplitude T wave. Katz says: "the large amplitude T wave changes, which at one time were considered characteristic of hyperthyroid disease, are relatively uncommon."

As this change is striking and easy to illustrate and sometimes so decisive for the diagnosis I wish to publish the following case:

September 29th, 1942 came a young man 30 years old to the office of Dr. B. W. Abramson.

History: Emotional stress for two months. Loss of weight from 155 to 133 pounds in two months. Perspiration.

Symptoms: No struma. No exophthalmus. Pulse 100, tremor, perspiration, basal metabolism rate + 36 per cent. All these symptoms could be found in neurocirculatory asthenia. The electrocardiogram was deciding.

Auricular rate 100

Ventricular rate 100

PR interval 0.16

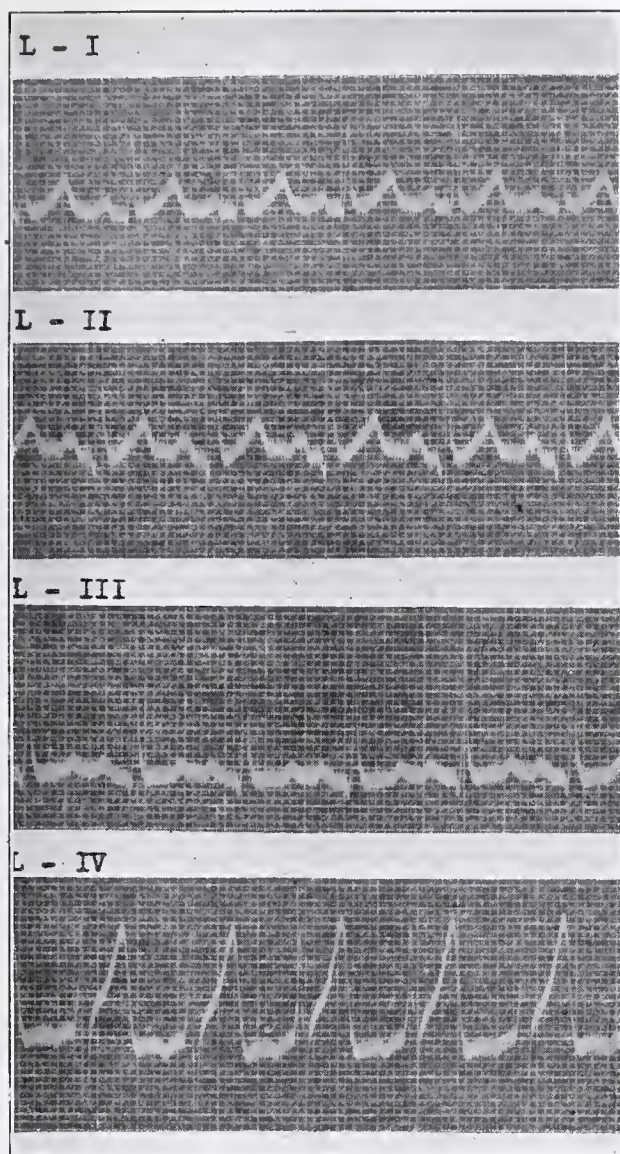
Rhythm regular

In lead II the P wave is notched.

In lead III the P wave is broad.

In lead IV an inverted P, raised RT and the T wave is 15 til 16 mm high.

Katz further states: "In lead IV a T wave taller than 9 til 11 mm is abnormal. Our T wave is 15 til 16 mm." The picture is striking and according to the experiences at the "heart sta-



tion" of Professor Rudolf Kaufmann in Vienna, who was my unforgettable teacher, it is typical for hyperthyroidism.

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Allergy In Hearing Defects

In the Ménière cases we feel that in most of them the symptoms are associated with some generalized edema. We have seen it in some cases with allergic headache, so that probably there is involvement of the auditory nerve in connection with this generalized edema and one would rely, I would think, more upon the association of other manifestations of allergy with Ménière's disease rather than picking out a case with only Ménière's disease and proving it was allergy. I think that is rather difficult to do in some instances.—French Hansel, M.D., St. Louis; *Jour. Ind. S.M.A.*, Vol. 36, No. 3, March, 1943.

War Challenges the General Practitioner

If tuberculosis is to be found preclinically or at onset of its earliest symptoms a thorough, practical and economical plan of attack is necessary. Weapons at hand include history, physical examination, tuberculin tests, sputum examination, X-ray and fluoroscopy.

Tuberculosis specialists generally feel that the greatest deterrent to early diagnosis by the practitioner is the expense of X-ray examination. If it were as easy to X-ray the lungs as to do a physical examination many more early cases would be found. Where X-ray facilities are handy it is simpler to take a picture and study it than to do a physical examination, which, though thorough, may fail to disclose the trouble. Most practitioners lack office X-ray facilities, but the truth remains there is no substitute for a good X-ray picture.

Physical examination may uncover râles, breath sound changes, etc., but their absence does not mean absence of tuberculosis. In every sanatorium are patients with far advanced disease who have been told by their family doctors that no signs of tuberculosis were present. Similar oversight may occur in some early cases when symptoms are present as well as positive X-ray findings. This is no reflection upon the skill of the physician, but proves that symptoms and X-ray evidence are often present before definite physical signs of tuberculosis develop.

Fluoroscopy, even in the hands of experts, is not as accurate as film methods in diagnosing tuberculosis. Serial pictures, too, give better clues as to the progress of lesions than mere observation of the clinical record.

The tuberculin test, variously conducted, is of value in the process of screening groups or studying individuals. A positive test shows that the skin has been sensitized by previous or present tuberculous infection. It does not prove that active pulmonary disease is present, but does call for an immediate chest X-ray. A negative test, conversely, is almost conclusive that active tuberculosis does not exist. There are exceptions to this statement, but they are rare.

Sputum examination is vital. A positive sputum leaves no doubt that active disease is present, but a negative sputum is no guarantee of its absence. There may be relatively few bacilli in a sputum sample; improper collection may provide saliva instead of thick material truly expelled from the lung by a spell of coughing; or too few samples may be examined. Reinforcing the simple smear are concentration methods, culture or guinea pig inoculations, and examination of the fasting gastric sediment in those swallowing their sputum.—Paul Geary, M.D., *Bulletin, National Tuberculosis Association*, March, 1943.

The Pre-Employment Physical Examination

ASHER RANDELL, M.D.

WITH the increasing demands for manpower by industry, farming and the Armed Forces it becomes the problem of all who deal with this subject to utilize all available facilities and knowledge to obtain maximum services from available individuals. This paper is intended to deal only with industry, and as such it will be confined to the physician in industry.

With the younger men entering in the Armed Forces, industry must fill its ranks from among the older age group, and it is here that the industrial physician must use his knowledge to the utmost. One can no longer set up an arbitrary standard and say that all employees must be free from all physical defects to obtain work. To do so is to court disaster.

First of all the plant physician must be thoroughly familiar with all the types of work done in the establishment, and with the physical requirements of these positions. Without this knowledge he can not be in a position to judge who is fit for what job. This particularly applies in organizations where the jobs vary from manual labor to skilled work requiring very little brawn. In the second place, the physician must know for what type of position each individual is applying. To employ a man of 65 as a laborer is to invite trouble, and similarly, to put a 35 year old physically fit person on a job as a watchman is a waste of valuable man-power.

No routine, standard form can be set up for each type of work. The simplest method that works to the best advantage is a complete form with special attention paid to those items particularly applying to the type of job. For a laborer, vision, hearing and an examination of the nervous system are far less important than age, type of work previously done, an examination of the heart, blood pressure, and the presence of a hernia or incapacitating physical defect. In an office worker, vision and hearing are important items, since obviously frequent headaches due to poor eyesight result in lost hours of work or at least lowered efficiency. For a skilled worker at a vital job, a stable nervous system is an important consideration, while a post-poliomyelitic paralysis of a foot or leg may be of no consequence. For the plant protection force the presence of active or latent syphilis is more than of passing interest. One doesn't relish the thought of an early CNS syphilis carrying a loaded gun.

In a similar manner the presence of certain

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conditions which may cause a man to be rejected for one type of work may not be disqualifying for another job which may be available. For example, an individual applying for the position of laborer who has an unsupported hernia is certain to be turned down, yet he may be put to work as a janitor or custodian. Likewise a hypertensive patient would be an undesirable person for a truck driver, but could very well be employed in the dispatcher's office. Numerous examples can be cited but the two mentioned should suffice to illustrate that the pre-employment examination should no longer be used as a weeding out process, but rather as another method of putting available people to work at the job best suited, if available.

Rejections will continue to occur and it is not the writer's opinion nor intention to state that every man can be put to work. However, careful examination will reduce the number of rejections and in some instances places people in positions better suited to their talents than that for which they originally applied. Furthermore, rejection of an individual because of a physical defect, which due to the examiner's unfamiliarity with the requirements of the position has no bearing on the job, may create in the examinee a sense of defeatism since he is deprived of work he may be capable of doing, and the employer is deprived of needed help.

The ultimate conclusion to be drawn is that it is the duty of the physician to be thoroughly familiar with available positions and the physical requirements of those jobs, and not merely to summarily pass or reject.

According to news dispatches from Washington, diabetics and others needing special diets will get special treatment under the program to ration canned goods. Officials were quoted as stating that the regulations will provide that anyone needing a special diet for medical reasons may obtain it by presenting a physician's certificate to a ration board.

Cyst of Mesentery; Case Report

G. K. MAHL, M.D.

THIS case is presented only with the aim of showing one of the rare cases which the general practitioner encounters during his many examinations of young patients, proving that all cases of juvenile nausea, vomiting and abdominal cramps are not gastro-enteritis or appendicitis.

This case also shows how near a person can come to a diagnosis of mesenteric cyst by using his five senses, plus modern laboratory diagnostic measures and still be unable to accurately diagnose same.

CASE HISTORY

Family History—Father, 27. Father had appendectomy in December, 1940. Mother, 25. Nervous type. Mother has always enjoyed good health until two years ago when she had bilateral salpingectomy and uterine suspension with appendectomy. No other pregnancies.

Past History—B. L. D. was born on March 30, 1935. She was a full term child, uneventful delivery without forceps. Child was a bottle baby, no gastro-intestinal symptoms for first eight months. At eight months, child started vomiting with some kind of breaking out in mouth which was diagnosed as acidosis. Since the age of eight months, child has had repeated attacks of vomiting and stomach ache. Attacks were only twice a year at onset but, since then, attacks have been more frequent until during the last year, attacks have been at one month intervals. There has been a daily complaint of pain in upper left side. On occasion, child has come into house from play and thrown herself across bed or mostly chair complaining of pain in abdomen, sometimes with and sometimes without vomiting. Pain would disappear in a few minutes time and child would return to outdoor and play. During last two years, presence of food in stomach has hurt patient to such an extent that she has reduced intake of food until weight has reduced markedly. Patient has been constipated since birth, requiring use of many laxatives and enemas. There had been much complaining of pain with enemas.

Present Illness—Began February 2, 1942, with patient complaining with pain in abdomen at which time she was given a laxative but it was impossible to obtain a normal bowel movement and enemas did no good; patient even having trouble with expulsion of water from enemas. Immediately after giving the enemas the patient vomited. Between date of onset, February 2 and February 6, patient had many repeated attacks of colicky pain in abdomen and back. All pains were on left side and upper part of abdomen. During that time patient did not eat anything, even vomiting water. Practically all that time, patient was on her knees on the floor or in bed with knees drawn on chest. From February 2 to February 6, patient was seen by one physician

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who gave her something to quiet her stomach but no diagnosis was obtained. Patient was first seen by me on February 6 at about 2 P. M. in my office. She was complaining of pain in upper left abdomen but mostly in left back and was also complaining of desire to void but was unable to do so. It was impossible to obtain a specimen of urine due to her lack of cooperation and patient was given a digestive mixture with belladonna. Temperature was 98.6, and pulse 110. Family was told to take her home and put her to bed and keep her on liquid diet and report condition later in the evening. Patient was taken to her home and was seen again at approximately 11 P. M. that same night. She was still complaining of the desire to void but was unable to do so.

Physical Examination—Temperature 98.6, pulse 124, Blood Pressure 110/60.

Physical examination showed markedly emaciated white girl of about 7 years of age, lying on her right side with both knees flexed. Examination of eyes, ears, nose, throat normal, teeth in good condition. There was a very shoddy cervical gland, thyroid not palpable, chest was clear to fluoroscopy and heart was of normal size and rhythm of rate was quite fast. Examination of abdomen showed liver, kidneys and spleen not palpable but there was tenderness in upper left hypocondriac with more pain noted with pressure in left lumbar region. There was no referred pain, there was a fluid wave noticeable of entire abdomen and abdomen was slightly distended. Genitalia was normal and reflexes were normal. An attempt was made to catheterize patient in office but this was impossible due to lack of cooperation. She was then removed to hospital for study.

Hospital Course—Patient was catheterized on admission and about one ounce of urine was obtained without difficulty. Urinalysis on this specimen showed only 2 plus albumin. She was put to bed and given 1/8 Gr. phenobarbital by mouth at 12 midnight. This was repeated again twice during the night, once at 1:30 A. M. and again at 2:55 A. M., but patient did not get much rest or relief from pain. She refused to stay in bed except when she was allowed to remain in knee chest position, and pain was much easier when child was held in parent's arms. She was given 1/8 Gr. morphine sulphate Saturday February 7 at 8 A. M. and due to pain in left lumbar region, albuminuria and difficulty in passing her urine, a urological consultation was held with Dr. Martin of Ashland, Ky. He recommended an intravenous urogram, which was done. This x-ray showed normal kidney and

ureters on each side but there was a displacement of the left kidney and ureter to the median line. A barium enema was now given which showed considerable distortion of the terminal ileum which was lying in the upper left abdomen and there was some filling defect. X-ray pictures of intestines was repeated in four hours following atropine therapy, but pictures remained about the same. This was about 9 P. M. on the evening of Saturday, February 7, and patient's temperature was now 100 and pulse 160 with respiration of 20, blood count 4,650,000 R.B.C., W.B.C. 9600; Sahli hemoglobin 75 per cent, with differential count of 6 stabs; 68 segs; 24 lymphs; 2 monos; or 74 per cent polys and 24 per cent lymph; N.P.N. was 30. She was seen in consultation by two surgeons and surgical abdomen was diagnosed with possible volvulus. Patient was taken to the operating room a few minutes later and an exploratory laparotomy was performed by Drs. Vidt, Henninger and myself under cyclopropane anesthesia by Dr. Gallagher.

Operative Procedure—Right rectus incision one inch to the left of median line and seven inches long. After entering peritoneal cavity, a large cyst presented itself. The cyst was delivered and was found attached to the lower third of ilium on anterior aspect of mesentery. The cyst contained approximately 26 ounces of clear straw colored fluid. The base of the cyst measured

Fluid	
Quantity	690 cc.
Color	Light amber
Character	Clear with many fat like particles
Odor	Odorless
S. G.	1.020
Solids	52 grams in 1000 cc.
P. H.	7.2
Culture	Negative
Smear (Centrifuged)	Many R.B.C. masses and globules resembling fat. Some crystals.
Smear (Wrights)	Eosinophil 4 per cent Segments 14 per cent Lymphocytes 82 per cent Globules resembling fat
Sugar	115 grams
Albumin	1.1 per cent or 11 grams in 1000 cc.

eight mm with axis of bowel and five mm from mesentery attachment with ilium downward. Three mm below original mesentery attachment of cyst a portion of the cyst herniated through an opening about three mm in diameter. This portion of cyst contained about four ounces of fluid. The cyst was opened, fluid evacuated and cyst severed along the bowel and mesenteric attachment. This raw surface, in turn, was closed with No. 0 intestinal catgut. The protruding portion of the cyst was tied as it came through the opening of the mesentery. The remaining part of the cyst excised. Abdomen closed in layers without drainage.

Postoperative Course—Course was uneventful except for pneumonitis which developed the day following operation. The child was comfortable following operation and was a good patient. Her temperature was 100 to 103.6 and pulse remained around 160, until the fourth postoperative day when her temperature returned to normal and pulse at this time was only 90.

Sulfathiazole in doses of 3.85 Gr. was given every four hours for pneumonitis. Patient was given petrogalar with mineral oil at night and morning and normal bowel movements were obtained. Clips were removed on the sixth post-operative day and patient was discharged on the tenth day. Three weeks following operation patient was seen in my office and was ambulatory. She had developed a ravenous appetite and was having normal bowel movements for the first time in her life without pain or medication.

Report of Dr. Hodges, Pathologist of Huntington, W. Va.:

The collapse cyst wall is 10x7 cm. thin, elastic. It contained 65 cc. cloudy straw colored fluid. Sections show a benign cyst wall of connective tissue and a thin endothelial like lining.

Axioms for Ideal Obstetrics

Every physician who walks into a delivery room should have such a procedure mentally outlined to avoid confusion and wasteful fumbling. When a woman is bleeding profusely her doctor must think straight and act deliberately if he is to save her life.

1. Many of the common mistakes which cause fetal and material mortality are avoidable.

2. Ninety per cent of women deliver normally if allowed to; therefore, avoid that dangerous ten per cent by learning to distinguish normal from abnormal.

3. A woman who cramps and spots is an ectopic until proven otherwise.

4. If you first classify an abortion, the treatment is then standard.

5. Never meddle with women who bleed in the last trimester. They are abnormal cases.

6. Verify fetal presentation early, as breech and transverse may get you into trouble.

7. The question in every primiparous labor is, "Will the head come through the pelvis?"

8. Any labor of twenty-four hours or more is prolonged and belongs in the abnormal group.

9. Never use posterior pituitary substance in the first stage of labor.

10. Do not rupture membranes promiscuously.

11. Abuse with forceps leaves a telling mark.

12. Learn to deliver impacted shoulders as there is no time for consultation.

13. Be prepared for post partum hemorrhage as the warning is brief.

14. Obtain the advice of a consultant early to keep out of trouble. Don't wait until you are in trouble to ask him to share the blame of mismanagement.

Doctors in general practice can perform an excellent brand of normal obstetrics. However, to do so they must be constantly alert to pick out abnormal cases. These simple axioms should serve to avoid many of the common mistakes noted in the average general hospital.—J. H. Beaton, M.D., Grand Rapids; Jour. Mich. S. M. S., Vol. 42, No. 1, January, 1943.

Mycotic Aneurysm of the Descending Thoracic Aorta

ROBERT B. MILLER, M.D. and JOSEPH H. OGURA, M.D.*

Case 42-351. A 74 year old white widow was admitted to the Chronic Disease Hospital August 1, 1942, with a history of chills and fever.

History: The patient noticed attacks of palpitation since childhood. In 1927 a sub-total thyroidectomy was done following which there was no improvement in the frequency of the attacks. In 1935 she attended the Cincinnati General Hospital heart clinic and a diagnosis of paroxysmal auricular tachycardia was made. In November 1941 she was admitted to the Hamilton County Chronic Disease Hospital with a diagnosis of pneumonia. She had bilateral upper lobe involvement and was treated with sulfapyradine with good response. During her hospital stay she had several bouts of tachycardia which were terminated by carotid sinus pressure. She was discharged a month later. In April 1942 the patient was again admitted to the Chronic Disease Hospital with cough, fever and pleuritic pain. She had been treated on the outside with a sulfonamide. The diagnosis of slowly resolving pneumonia in the left lower lobe was made. No further treatment was given and her temperature returned to normal. She remained well until the last of May when she developed a chill and acute pain in the right leg and knee. The following day erythematous tender patches appeared on the right leg and foot and were considered an "erysipeloid reaction to a fungus infection." The skin lesions responded to wet dressings and Whitfield's ointment. Blood cultures were negative. She was discharged to her home in June. The patient's final admission was on August 1, 1942. Since her discharge she had a chill followed by a fever at irregular intervals, usually two to three days apart. These episodes were usually followed by nausea and vomiting and left her weak and exhausted.

Physical Examination: The patient was noted to be slightly obese, the temperature was normal and she did not appear acutely ill. The eye-grounds showed moderate arteriosclerotic changes; there were rales at both lung bases. The heart was enlarged to the left, the rate was 80 and the rhythm regular. The blood pressure was 170/80. There was a systolic murmur heard over the precordium, best at the aortic area. The aortic second sound was increased. The liver was percussed 3 to 4 cm. below the costal margin. The spleen was not palpable. There was slight right upper quadrant tenderness. There was no costovertebral tenderness. The finger nails were slightly curved; on the right conjunctiva there was a small petechial spot.

Laboratory Data: Catheterized urine contained a few white blood cells and 1+ albumen. The specific gravity was 1.011. Culture revealed no organisms. The white blood count was 10,000 with 53 per cent neutrophils, 40 per cent lymphocytes, 6 per cent monocytes, and 1 per cent

eosinophiles. No malarial parasites were seen at this time or subsequently (12 negative reports.) The Kahn test was 3+ positive.

Hospital Course: On the fifth hospital day a chill lasting a half hour developed, followed by a rise in temperature to 106°. Blood cultures taken during the chill revealed a Gram negative coccus and rod considered to be probable contaminants as all following cultures were negative. The chills continued to occur two to three times per week. A painful stiff neck developed and lumbar puncture was done; the cerebrospinal fluid showed no abnormalities. There were several attacks of paroxysmal tachycardia which were usually aborted by carotid sinus pressure. Quinidine also had to be given in addition to digitalis, which had been taken for the past 12 years.

On the 18th hospital day the white blood count was 61,000 with N. 95 per cent, L. 3 per cent, E. 1 per cent and 1 per cent myelocytes. Later counts showed 38,000 and 54,000, with a shift to the left. Bone marrow study revealed hyperplasia of the white blood cell series and was interpreted as a leukemoid response to a severe infection. On the 28th day the patient noticed tenderness in the left flank. She gradually became weaker and on the 36th hospital day suddenly coughed up a large amount of blood and died. Throughout her stay she was treated with digitalis, blood transfusions, sulfadiazine and vitamins.

Other Laboratory Work: X-ray. 8-8-42: enlarged heart, especially left ventricle, ? renal or biliary calculus; no mass was seen in the posterior mediastinum; 8-15-42: osteoarthritis of cervical spine, gall bladder not visualized on oral cholecystogram; 8-17-42: pleural fluid on the right. Agglutinations. 8-12-42: Tularensenegative; Brucella—1/160 (Clarke strain); 8-18-42: Brucella—1/640 (Clark Strain); 8-28-42: Brucella negative (different laboratory). Urine. 8-13-42: Sp. gr. 1.022, albumen ++; 8-24-42: few WBC, albumen +; B.U.N. 8-21-42: 35 mgm. per cent; cholesterol. 8-27-42: 142 mgm. per cent Red blood count. Ranged from 3.5 million to 2.9 million; 9 negative blood cultures.

Clinical Diagnoses: 1. Chills and fever—etiology undetermined; 2. arteriosclerotic heart disease with paroxysmal auricular tachycardia; 3. latent syphilis.

Necropsy (A-42-107): The necropsy was performed on September 6, 1943, 10 hours post mortem.

Gross Examination: The body, measuring 159 cm. in length, was that of a fairly well developed and fairly nourished white female, apparently 74 years of age. The skin was pale, smooth, moist, inelastic, and showed no abnormal pigmentations or scars. Edema was absent. The pupils were round, regular, and equal. Immediately on opening the peritoneal cavity, approximately 1000 cc. of clear yellow fluid was encountered. All of the abdominal organs were in their normal relationships, and their surfaces had a glistening, moist appearance. When the sternum was removed, the mediastinum was found slightly shifted to the right, and the entire left pleural cavity contained a considerable

This is the thirteenth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital. The Chronic Disease Hospital is affiliated with the Cincinnati General Hospital.

amount of clotted blood. The left lung occupied two-thirds of the left pleural cavity, complete collapse being prevented by several rather thick connective tissue bands between the visceral and parietal pleurae laterally and at the apex. On casual inspection, no obvious cause for the left hemothorax was found. The basal portions of the right pleural cavity showed 300 cc. of rather



deep yellow clear fluid showing a few flecks of fibrin. The heart weighed 360 gm. The pericardial sac contained 300 cc. of clear yellow fluid. The valves, endocardium, myocardium and epicardium showed little of significance. Scattered small areas of fine fibrosis were present in the interventricular septum. Small elevated yellow plaques were present in the first portion of each of the coronary arteries.

The thoracic aorta throughout the greater part of its extent was of normal caliber, and showed areas of irregular, yellow, subintimal thickening. "Tree barking" and wrinkling of the aorta were not evident. A large multilocular, saccular, aneurysmal mass, measuring 7 cm. in transverse diameter, and 5 cm. superoinferiorly was found immediately above the diaphragm. Extensive hemorrhagic infiltration had taken place into the tissues of the posterior mediastinum, as well as for a slight distance over the left leaf of the diaphragm. On section, the sac was seen to occupy the anterior and lateral wall of the aorta but the posterior aspect was spared. Both old and recent laminated clots were visible. A perforation was seen to extend from the left lateral aspect slightly posteriorly into the left pleural cavity. The opening measured 5 mm. in diameter. At the edge where the aneurysmal sac began, an abrupt break in normal architecture

was evident. The intima and media were replaced by gray-white, very friable, thin, softened, irregular wrinkled surface, and showed extensive hemorrhagic infiltration from the surface to the deeper layers. Some connective tissue reaction was evident in the deeper areas of the sac. Abscess pockets were not seen, either in the wall or in the surrounding area. (See illustration. The arrow points to the perforation.)

The normal sized spleen weighed 175 gm. It was attached to the left posterior lateral aspect of the left upper quadrant, and the inferior aspect of the left diaphragm. An abscess located in the mid portion of the spleen was accidentally broken into and revealed a large amount of pale yellow-red exudate. The border showed a rather thick zone of firm, yellow tissue. The liver weighed 1800 gm. and on section appeared yellow brown and softer than normal. Each kidney weighed 150 gm. and showed nothing striking. Varying sized pedunculated "fibroids" were seen attached to the uterus posteriorly, and on section the usual fibro-muscular whorls were seen. In the posterior cranial fossa, there was an encapsulated tumor mass, 1.5 cm. in diameter, attached to the dura, and located near the torcula herophile, beneath the tentorium.

Microscopic Examination: Sections taken from the edge of the aneurysm showed the following picture: rather abruptly, the irregular atherosclerotic intima and media are replaced in the sac by irregular strands of fibrin, and a heavy collection of polymorphonuclear leukocytes. Recognizable bits of degenerating medial structures and hyalinized intima are visible near the surface. Much of the fibrous material assumes an amorphous eosinophilic character. A few small, fresh hemorrhagic foci are scattered about. Generous collections of leukocytes can be seen invading the media and adventitis at the edge of the aneurysm. The deeper part of the aneurysmal wall showed rather old connective tissue, and recent granulation tissue, and mononuclear cells are evident on approaching the surface. With the aid of Gram stains and Giemsa stains, numerous colonies and extra-cellular collections of Gram-negative coccobacilli were seen throughout the superficial areas. Many organisms were intra-cellular. A few perivascular cuffs of lymphocytes were present in the ascending aorta; however, endothelial swelling and vascularization of the media were absent. This reaction was absent in the thoracic aorta. Medial degeneration was nowhere seen.

Sections taken through the left lower lobe of the lung showed a recent laminated blood clot on the pleural surface. The alveolar spaces were narrowed, many collapsed, and desquamated pigmented cells were present in the lumen. Varying sized areas of fibrino-purulent exudate were present in the acini and terminal bronchioles. In many acini fibroblastic proliferation in this fibrous lattice framework was taking place.

The central portion of the liver lobules showed fragmentation and the individual cells presented granularity of the cytoplasm, pyknosis; those about the central vein have disappeared. Numerous polymorphonuclear leukocytes were present in these areas of degeneration. Central vein congestion was present but the portal areas were normal. The mucosa of the gall bladder showed advanced postmortem autolysis. In several areas of the submucosa heavy collections of dense blue amorphous material were present with numerous polymorphonuclear leukocytes. The muscularis showed considerable old and recent fibrous tissue

proliferation and inflammatory cells, principally lymphocytes, eosinophils, and occasional polymorphonuclear leukocytes. Gram and Giemsa stains revealed organisms essentially like those in the aneurysm. The softened area seen grossly in the spleen was composed of amorphous material, numerous types of mononuclear cells, and polymorphonuclear leukocytes in various stages of degeneration. The border of this necrotic area was composed of granulation tissue, fibrous connective tissue, both old and recent, and mononuclear cells. Organisms were seen in the exudate. The red pulp and white pulp of the remainder of the spleen were normal. The striking features in the kidneys were the numerous polymorphonuclears in the interstitial tissue, noted principally at the cortico-medullary junction. The reaction extended into the medulla and for a slight distance into the cortex as well. An occasional tubule in this area contained polymorphonuclear leukocytes in the lumen. No significant lesions were found in the calyces or the pelvis. Except for some granularity and swelling of the collecting tubules, and a rare hyalinized glomerulus, other significant manifestations were not present. There were no vascular lesions. The other microscopic findings were not important. The gross diagnoses of meningioma and fibroids were confirmed microscopically.

The final pathologic diagnoses were: sacculated mycotic aneurysm of the descending thoracic aorta, with perforation into the left pleural cavity, massive hemothorax and compression atelectasis of the left lung; acute cholecystitis, superimposed on chronic cholecystitis; acute hematogenous nephritis; septic infarct of the spleen; generalized arteriosclerosis, with coronary and aortic atherosclerosis; mild interstitial myocardial fibrosis; pulmonary congestion and edema; hydrothorax; hydropericardium; ascites; organizing and terminal lobular pneumonia; fibromyomata uteri; meningioma in the posterior cranial fossa; bilateral pleural adhesions.

DISCUSSION

Clinical and bacteriological investigation of this patient revealed no definite cause for the chills and fever. In view of the later pathological findings, the first blood culture may not have been a contaminant as originally considered. No anaerobic cultural methods were employed. It is indeed unfortunate that the organisms could not be further identified. Attempts were made to isolate the organisms after formalin fixation, but these attempts were futile. Dr. Lee Foshay, professor of bacteriology in the University of Cincinnati, made a careful study of the case and felt that these gram-negative cocco-bacilli were morphologically indistinguishable from the *Brucella* strain of organisms; however, the organisms could not be identified as *Brucella*.

Mycotic aneurysms of the aorta are recognized but they are of infrequent occurrence.¹ The location of this particular aneurysm appears to be unique. The majority of the cases reported show involvement of the base of the aorta or the transverse aorta. Some were associated with bacterial valvulitis; others with coarctation of the aorta.^{1,2,3,4,5} Death in this case was due to

rupture of the aneurysm into the left pleural cavity, which is uncommon.

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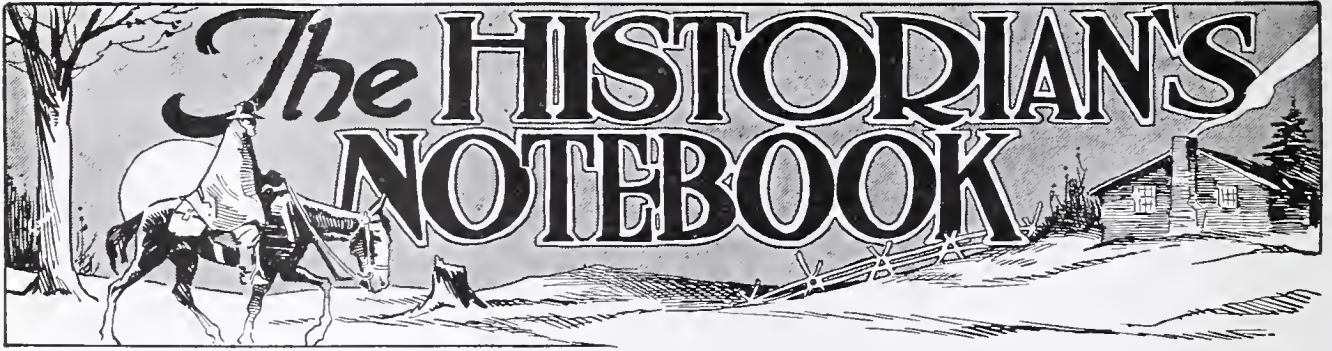
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Perforating Peptic Ulcer

When a diagnosis of acute perforation of a peptic ulcer is made, the indication for immediate surgical intervention exists, with but one exception. It is apparent that in 90 per cent of the cases of this series the patient survived when operated on within the first seven hours and that after sixteen to eighteen hours the rate of survival was only 25 per cent. In the cases of more than sixteen hours' duration with survival a perforation which had spontaneously been sealed by omentum was invariably encountered, and suture of the perforation was unnecessary. At this stage an already generalized spread of peritonitis had ensued, and the damage had already been wrought; the suture of an open perforation did not save a single patient. The introduction of peritoneal drains did not satisfactorily combat the peritonitis, and the intraperitoneal instillation of sulfanilamide powder appeared to be without benefit in these cases in which the source of contamination arose so high in the gastrointestinal tract. The patients that survive will survive without surgery; either nature localizes the peritonitis with subsequent formation of a local abscess, or spontaneous sealing off by omentum occurs. In this group, therefore, surgical intervention is contraindicated. In few other abdominal emergencies does the element of time influence the ultimate outcome to such a profound degree.

The routine passage of a stomach tube pre-operatively and the aspiration of the gastric contents are a desirable procedure. Emptying the stomach by this means does not, however, alter the fact that immediate surgical intervention is imperative. The institution of gastric suction does not justify postponement of the operation. It is merely an adjunct that in no way alters the indications for surgery. Continuation of gastric suction during the early postoperative period practically eliminates visceral distention and it decreases the tension at the site of perforation.

Improvement in the mortality figures is more dependent upon early operation than upon a search for new surgical technics. Since acute perforation represents a dire emergency, the operative procedure should be designed to close the perforation with minimal attendant trauma to the patient.—Martin Mangels, Jr., M.D., and Edward Jelks, M.D., Jacksonville; Jour. Fla. M.A., Vol. XXIX, No. 6, December, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., Cincinnati, Ohio

(Continued from March issue)

AT THE 1885 state meeting a paper on "Rare Complications after Ovariectomy" by Dr. C. D. Palmer of Cincinnati, showed the very unique and poor surroundings with which the operators of those days had to contend. In December, 1884, he operated in a one-room apartment where the 19 year old patient and her mother lived. The operation followed eightappings which removed large quantities (one and one-half buckets-full at each tapping) of fluid over a period of some 16 months during 1883-84. Finally Dr. Palmer decided to make an exploratory incision "to admit the index finger" into the abdomen so as to confirm his diagnosis of ovarian cyst. "The operation was undertaken under the most adverse circumstances. The general conditions were the most unpromising for ovarotomy of any patient upon whom it has been my opportunity either to operate or see operated. Assisted by Drs. J. Keller, J. Ransohoff, Gustave Zinke, and Krause, the abdomen was opened between the umbilicus and near the symphysis pubis. The cyst wall was closely and in all directions adherent to the abdominal parietes". . . . It is interesting to note that carbolized silk was used for many of the ligatures and hot water sponging for hemorrhagic oozing and the application of the thermo-cautery at red heat. "The peritoneal cavity was cleansed—by means of, very soft carbolized sponges, wrung out of hot water". . . . "on the twelfth day a smell of fetid gas with fecal odor at the opening made into the abdominal cavity. The next morning a small particle of fecal matter was seen and removed. It is to the occurrence of this fecal fistula after ovariectomy—a complication both important and rare, that interest is attracted". In referring to Dr. Palmer it is interesting to note that he was one of ten doctors who formed the Cincinnati

Obstetrical Society in 1876. The object of this society was the "promotion of knowledge that pertains to Obstetrics and Diseases of Women". Dr. Palmer was President in 1881. They accomplished a great deal in lifting the practices of Obstetrics and Gynecology to a much higher level than had been the case in Ohio. It is surprising how close these two branches of the medical profession were in those early days, for Dr. Palmer was the head of these departments, from 1870 to 1900, at the Cincinnati General Hospital. He published 63 articles on some form of female pelvic trouble.

Another paper at this state meeting was on "Clinical Notes on Osteotomy" by N. P. Dandridge; it was discussed by Drs. Herrick of Cleveland, Conner, Ransohoff, and Ryan of Cincinnati.

"Urethral Calcula" was the title of the paper of Joseph Ransohoff, Professor of Descriptive Anatomy and Clinical Surgery at the Medical College of Ohio.

C. A. L. Reed, M. D., of Hamilton, read a paper on "Pelvic Hematocoele" in which he finished with the following, "Dr. Herrick of Cleveland, from his remarks about septic trouble following operations in these cases led me to believe that he had in mind the Paris cases reported from 1847-1855. But he should recollect that we are living in another era. We are living in the days of antiseptics, in the days of Lister and Tait, in the days of clean surgery, and in the year 1885".

Dr. Dudley P. Allen of Cleveland, presented five cases of abdominal section at the state meeting held in Akron in June, 1886, to show some of the difficulties to be overcome. The question of diagnosis of the first case has always been uncertain as several possibilities existed; they were a malignant or inflammatory cecum, a cyst,

a local peritonitis and an extra-uterine pregnancy. Nothing could be accomplished by the laparotomy because of the adhesions. The patient's fever ceased in a few days and she made an uninterrupted recovery and to the time of the report is well except for a small thickened mass in the pelvis. The second case was reported to record the presence of an unusually developed bladder greatly endangering operation. Here an attempt was made to lift the uterus out of the pelvis by means of an inflated colpeurynter. For four weeks, after dilating the cervix, ergot was used to expel the fibroid without result even though external pressure was used. Exploratory operation was finally done but without success in removing the growth as it was felt there were too many adhesions. Later the patient improved in general but no definite explanation is offered to explain this. The third case was one of a greatly enlarged, tense abdomen due to ovarian tumor. The bleeding during the operation was excessive from the intestines and omentum. Towels were wrung out in hot water and repeatedly inserted into the abdomen to stop the bleeding. This method of hemorrhage control was very unusual in Ohio. The loss of the fourth case was attributed to a weak heart developing after a bilateral oophorectomy. The fifth case created interest as the dermoid cyst shown to the doctors at the state meeting was a tumor containing one and one-half pints of fluid, sebaceous material, hair, a piece of bone on which were two well formed teeth.

At this time early operation for surgical injuries was just beginning to be appreciated by those formerly believing that the surgeon should wait until full reaction had been established. Since the discovery and use of anesthetics especially ether, Dr. Harvey Reed of Mansfield, the author of a paper, questioned the propriety of delay in a large majority of cases: his title was "Early Operations in Surgical Injuries". The use of ether quiets the nervous system and deadens the patient's sensibilities.

Dr. C. A. L. Reed presented a paper on "Extirpation of the Uterine Appendages with Cases".

Another paper, the "Summary of Ten Abdominal Sections", by W. D. Hamilton, of Columbus, was enlightening to the doctors present. One was for multilocular ovarian cystoma weighing 32 pounds followed by peritonitis which caused death on the third day. Another laparotomy was on the ovaries with abscess containing two quarts of pus with death from peritonitis on the third day. Another was for multicystic ovarian tumor weighing 23 pounds with recovery. Another patient, aged eighty-one and one-half years, had a 32 pound tumor removed followed by prompt recovery. Even though Dr. Hamilton's experience was limited to 10 cases he felt it was

a frequent and imperative duty to reopen the wound so as to remove the cause of the septic complications.

A. W. Ridenour of Massillon said in an article on "Hernia"—"You will certainly first see that you are clean yourself, your nails, your patient, and that your operating room, your instruments, your assistants are also properly prepared. You will not use sponges at all but will use absorbent cotton, prepared in bichloride". The writer of this article will not repeat the further instructions given by the author quoted above.

Following up the subject of hernia to quote from the paper of H. J. Herrick of Cleveland, read at Toledo, in June, 1887, one is interested to find that operative procedure was gaining ground. In his operation he claimed that "clamping of the neck and removal of sac was probably new as by that method the peritoneal cavity was not opened to admit any septic material. I am driven to the conclusion that the direct open method is the only one that promises almost absolute guarantee of cure with the least possible danger".

THE 42ND ANNIVERSARY MEETING

The 42nd anniversary of the founding of the O. S. M. S. was held at Toledo in June, 1887. In the Presidential Address by Thomas McEbright the following statement was made which is true for all time: "public debate sharpens the intellect, fixes attention, and develops the faculties of the mind". Dr. C. A. L. Reed read a paper on "Intra Peritoneal Hematocele", in which he reported his one case (the operation was successful). Prior to 1881 such cases were almost uniformly fatal. Laparotomy, he stated, calls for the, (a) control of progressive hemorrhage, (b) removal of dangerous debris, (c) to extirpate worthless appendages, and (d) to overcome septic conditions. In cases where the bleeding is slight it may be controlled by the styptic influence of sulphurous acid irrigations, or, if considerable by deep ligature of the broad ligament".

"Amputation in Osteo Cancer of the Limb" was the title of the paper by Dr. S. F. Forbes, of Toledo, in which he spoke of an old surgical maxim forbidding the amputation of a limb in the continuity of the long bones of which is a cancerous disease, but requires that the operation should be done at the joint above the seat of the disease. The paper of Dr. Forbes dealt particularly with cancer of the lower end of the femur as he felt amputation at the hip joint was not always necessary. His description of what bone cancer is, is most interesting and indicates most positively the reason why cancer operations were not advised until they were practically hopeless in those days before humanity was blessed by being given the enlightenment coming with the

modern X-ray. Dr. Forbes said bone cancer treatment has been divided into three categories, the expectant with internal remedies, excision and amputation: of the first mentioned method "only the timid and unlearned of our profession follow it". "The justification of excision is only proper if the soft parts are not involved and operation can only prove this, hence amputation is all that offers favorable results in bone cancer and that is not always certain". He advised operation in all cases so as to lengthen the days of a patient; as "longer" life is but an increase in the number of days.

VAGINAL HYSTERECTOMY FOR MALIGNANT DISEASE

Dr. T. A. Reamy, Professor of Clinical Gynecology, Medical College of Ohio, Gynecologist to the Cincinnati Hospital and to the Good Samaritan Hospital, reported at the 1887 meeting of the Ohio State Medical Society five cases of vaginal hysterectomy for malignant disease. His first patient made an interesting statement before her operation, which statement is in the minds of many patients today, "I will have the operation. I would rather be a star in a tragedy than suffer a torturing death from cancer". The assistants at this operation were Drs. E. W. Mitchell and J. M. Withrow. In his paper Dr. Reamy states that vaginal hysterectomy for malignancy is becoming gradually established as a legitimate procedure. Some nine names of prominent Ohio doctors are mentioned in the report of the discussions so one may appreciate its importance 55 years ago.

As the number of annual state medical meetings had reached into the forties so had the number of surgical papers increased as surgery was being recognized, more and more, as a proper way to control disease and prevent unnecessary death.

The 1888 meeting at Columbus was the forty-third annual meeting. A. W. Ridenour of Massillon reported 38 hernial operations which was a large number of cutting operations for hernia. His first operation was in 1869 for strangulated hernia. The author states in his paper he considers "the proper closure of the opening into the abdominal cavity the key to success" and mentioned seven ways this may be done; he also was an advocate for the use of silver wire in closing the opening. Dr. Ridenour ended his paper by advising the doctors to encourage operation on "young or old, male or female". This paper was followed with a paper by Dudley P. Allen of Cleveland, on the same subject "The Radical Cure of Hernia". In speaking of antiseptics in preparation of the patient this statement was made, "While we do not say that the employment of antiseptics is an absolute necessity, we do consider them highly desirable". Dr. Allen's

first hernia operation was in May, 1885. This patient was 25 years of age and had a congenital inguinal hernia hanging down one-third the length of the thigh; the scrotum could be invaginated and the wide open hand passed upward into the abdomen as far as the umbilicus. Three years later the patient is reported completely cured. "A drainage tube was inserted to just outside of the united pillars". We argued that at the end of the week the peritoneal cavity could be closed against all danger from suppuration, and that by allowing suppuration a larger cicatricial mass would be formed to resist return of the hernia". . . . "The possibility of such secretion pushing its way toward the abdominal cavity, . . . would indicate the need of measure to avoid such a serious complication". Dr. Allen also operated on a boy 25 months old in December, 1886, and states "So far as we know few if any cases so young have been successfully operated upon for hernia".

Dr. Rufus B. Hall of Cincinnati, who joined the state society in 1884, reported ten operations on the uterine appendages in about two years beginning in September, 1887, of which but one died of peritonitis; eight were for pyosalpinx and two for oophoritis. It was in 1888 that Dr. Hall began the use of the same anesthetist for his patients and he is credited with being the first doctor in Ohio to follow this practice.

In an early history of surgery one should not fail to mention the beginning of at least one of the early hospitals where prominent surgeons have carried on for over a half century. The Christ Hospital was founded at 46 York Street, Cincinnati, on November 14, 1889, with Dr. C. G. Comegys at President and Drs. D. D. Bramble, George E. Jones, Leonard Freeman and J. C. Oliver on its surgical staff. Drs. J. M. Withrow and C. L. Bonifield were the gynecologists with Drs. A. V. Phelps, B. M. Ricketts acting as its plastic surgeons. Dr. P. S. Conner was put on the Consultant Staff in April, 1893. In going over the early reports of the secretary of the hospital's staff meetings the following indicates that a present day problem with the internes is not a modern one, to quote, "the interne be required to write in ink a history of each case". A few prominent early surgical names were those of Frank Fee who started his career as senior interne in 1896. Dr. Otto Geier began his internship in 1897. In 1903, C. A. Langdale and Gordon McKim were first choice for internes and this same year J. C. Oliver was made Medical Director and chief of staff of Christ Hospital. Dr. C. D. Palmer was on the gynecological staff for a number of years in the early days.

THE FIRST PORRO CAESARIAN SECTION

The first Porro Caesarian section operation, for the delivery of a child, done in Ohio and the

third successful one in America of nine done up to June, 1889, was made by J. F. Baldwin of Columbus. The incision was made through the linea-alba after washing and shaving the abdominal wall. It is interesting to learn that after the two inch incision was made in the uterus it was lengthened by tearing the uterus to the full length of the abdominal wound by the operator using his two index fingers. The body of the uterus and both ovaries were cut off with but little hemorrhage, though it was controlled with some difficulty in the poorly illuminated room. Convalescence was prompt. The child was a girl weighing seven and one-half pounds, but inherited the peculiar deformity of its mother. It lived about ten months.

A. W. Ridenour of Massillon, read his second paper on hernia, going into considerable detail this year as to the various types of hernia, and the possible complications; he discussed the treatment of the 60 cases he had operated upon of which 25 (43 per cent) had severe strangulation complications and ten (16.5 per cent) a milder strangulation. Three of the sixty cases (5 per cent) died after the operation. In other words, at that period of surgery's development 56.5 per cent of hernia operations were for strangulation. Today it undoubtedly is very considerably less than 1 per cent.

Two papers on vaginal hysterectomy by C. A. L. Reed and Thad A. Reamy were very interesting as they expressed their opinions as to removal of the entire uterus as a measure of safety. Reamy asked why removal of the entire uterus is safer? "Would the gentleman who makes this assertion amputate at the shoulder joint, because of cancer confined to a finger?" . . . "Such practice would be denounced by any surgeon of ordinary sense". Dr. Reed said, "That every case of cancer of the uterus in which disease is not too far advanced should be subjected to total extirpation of the diseased organ through the vagina".

W. J. Conklin of Dayton, who joined the Ohio State Medical Society in 1868, read a paper at the Sandusky meeting in 1891, when the state membership consisted of but 556 doctors. He made a statement that is still true and we hope always will be true: "Modern medicine acknowledges no intellectual restraint. She bids defiance to tradition, boldly questions authority and sets precedent at naught".

Dr. R. Harvey Reed of Mansfield, read a paper on "Surgical Treatment of Chronic Catarrhal Appendicitis". He started with this quotation,

"Everything can something do,
But pray of what use are you".

"unless it is to get up a disturbance with humanity and give employment to the undertaker" . . . "Don't wait for the undertaker to come

to your rescue and 'bury' the results of your procrastination beneath the sods of the valley"—"In removal of an appendix, it is only necessary to make an incision over the region of the appendix parallel to Poupart's ligament, just large enough to expose the end of the cecum and its rudimentary attachment. Then ligate the appendix as close to the cecum as possible with an antiseptic ligature, nip off the offending rudiment with a pair of scissors, cover the stump carefully with a hood of omentum held in place with a few antiseptic silk stitches, make your toilet carefully and close up the external wound and cover it with an antiseptic dressing". . . . "When this operation has been successfully performed you have removed the ax, so to speak, which was hanging by a frail thread over the head of your patient and daily threatening his life".

"RARE CASE OF PELVIC DROPSY"

From Columbus Dr. J. F. Baldwin reported a "Rare Case of Pelvic Dropsy", in a patient 22 years old. The tumor had as its base the posterior vaginal wall and contained about a pint of fluid or simple serum, which was removed by an aspirator. The cyst was obliterated and the patient cured by inflammatory reaction using a tenth per cent solution of bichloride of mercury repeatedly applied.

Dr. R. B. Hall of Cincinnati, gave an interesting article on the pro's and con's of abdominal drainage, but expressed his final conclusion as in favor of drainage because he felt it to be a life saving procedure; he said he would drain every case in which the peritoneal cavity had been opened, provided small tubes with small perforations be used and they be kept empty every few hours. Such tubes do not permit the omentum to be forced through their openings. His conclusions were that the tube permitted the observers of the patient to tell if too much bleeding was occurring; the surgeon then expected some bleeding and hoped it would be little. Drainage allowed nature to fight death from sepsis. The drainage tube could be removed in eight to ten hours, if no evidence demanded its presence, with no harm or disturbance to the patient.

THE SO-CALLED ANTISEPTIC AGE

It is very enlightening as to the doctors' thoughts in the 1892 period or so-called antiseptic age, to read the following from an article on "The Doctor's Hands" by Dan Millikin of Hamilton, delivered at the Cincinnati meeting in May, 1892, the forty-seventh annual meeting. "The gloves should be dusted within daily with boracic acid in impalpable powder. The hands should be washed for a long time in warm water, the longer the better. A minimum

of soap should be used, and at the conclusion of the washing the soapy water should be disposed of so that the hands may be rinsed in rain water. . . . Water that contains even a little mineral water is ruinous. . . . If the case is a bad one, the hands while still wet, should be thoroughly rubbed with a thimble full of oat meal;" etc., etc. . . . "The surgeons and micro-bists may be able to forgive me when I say that the best reason a doctor's hands should be clean is that uncleanness is ungentelemanly".

Dr. D. P. Allen of Cleveland, operated successfully on an intestinal obstruction caused by Meckel's diverticulum in 1889 reporting it at the state meeting in 1892. His patient was 34 years old and in excellent health. His first pain was some nine days before the operation, the interval having short recurrences of pain. A diverticulum four inches to five inches long was found attached by a band to the right and below the umbilicus. Around this was attached a coil of small intestine. The band was divided between two ligatures relieving the restricted bowel. The abdomen was closed. Three years later the patient was reported well. The operator drew many conclusions as to the symptoms suggesting a correct diagnosis which are still true today.

From Toledo came a paper by Dr. C. A. Kirkley on "Report of Abdominal Operations for 1891". This and the following paper by Dr. Tod Giliam of Columbus with the same title go into the pro's and con's of abdominal drainage. The latter paper, as did a paper of the year before, urge the need of drainage as the abdominal surgeon was at that time always looking for surprises and always was very pleasantly or unpleasantly surprised. For this reason, case report papers were particularly instructive to the listeners as well as the speaker for these brought out the then important and frequently discussed subject, drainage, to be or not to be. Surgery was still in its developmental stage though there were many doctors beginning to see the end of the urge to drain every abdominal case; Dr. Giliam said, "Everything has its place" . . . "but it is often done when it is not necessary for what is the use of drainage when there is nothing to drain"; A few advanced thinkers were beginning to believe the drainage tube was responsible for many fistulas that would not otherwise have developed as it was a high road to septic infection.

FRACTURE OF THE SKULL

Dr. George W. Crile of Cleveland, read a paper on "Fracture of the Skull" and brought out some of his interesting and constructive conclusions on ten personal cases. He emphasized the importance of enlarging the external scalp wounds, especially toward the base, as the line of fracture

may be some distance from the point of injury—even on the opposite side of the skull. He reported one case in which a piece of bone one-half inch by one inch long, which early in the operation had been discarded in a cold solution of 1/2000 bichloride of mercury was taken and fitted into the wound; it took new life and the skull felt, to touch, as if it had never been injured.

Dr. R. H. Reed of Mansfield, chose again this year the then popular subject of Appendicitis, his title being "A Contribution to the Study of Some Diseases Peculiar to the Right Iliac Fossa". He said, "idiopathic peritonitis" has taken its seat in the same corner with "malaria", "liver complaint" and "female weaknesses", for it is hard to teach an old dog new tricks. He compared the appendix to the Indian who said of a gun, "it was dangerous without lock, stock or barrel" and Dr. Reed said, "The appendix was like the old adage, 'only a dead Indian is a good Indian'". Someone said a diseased vermiform appendix is like money in the commercial world for it is "the root of all evil" and the only reliable method of treatment is the amputation of "this useless, dangerous and treacherous rudiment, the inheritance of which we have received from our ancient ancestors". Procrastination is the thief that has stolen thousands of patients from the physician and surgeon and given them to the undertaker.

"The Present Status of Obstetrics and Gynecology" was the title of C. D. Palmer's paper before the society at the Cincinnati meeting. He said "one of the most important advances of medical and surgical gynecology is the recognition of bacteria in producing certain morbid changes. The next article read by Dr. E. Gustave Zinke of Cincinnati, is particularly interesting because of the four pictures shown in the article of Dr. Palmer and Dr. E. Gustave Zinke operating on a woman for Caesarian section; it shows the two doctors with white operating coats over their street clothes, stiff collars and ties, with no caps over their heads and of course no gloves. May be they had not cleaned their fingernails. One wonders why there were not more death dealing infections in the patients or doctors. In speaking of Dr. Zinke one cannot omit a poem written for a dinner given in his honor.

"There are lots of obstetricians I have heard
about
But we've the greatest one of all to pull
the babies out
For I've seen him deliver the very same child
Forty different times in as many different
styles.
What's his name . . . Dr. Zinke.
He's a great man but cruel as a chink,
For he's separated children that were born
together:
He's cut the only cord that binds the child
to its mother".

(Continued in May issue)

Special Warning Issued on Epidemic Kerato-Conjunctivitis

By A.M.A.; Diagnosis, Treatment and Prevention Outlined

A SPECIAL "WARNING" bulletin regarding Epidemic Kerato-conjunctivitis, a condition which has appeared so extensively throughout the country and has contributed to much lost time in war industries, has been prepared and issued jointly by the United States Public Health Service and the Committee on Industrial Ophthalmology of the American Medical Association.

At the special request of the American Medical Association, *The Journal* is publishing herewith the complete bulletin and recommends that all readers of *The Journal* give it very careful analysis and consideration:

TEXT OF BULLETIN

Incubation period. Five to ten days.

Clinical Manifestations. The onset may be preceded by a low fever and mild generalized malaise. The local ocular symptoms are merely those of a foreign body or conjunctival irritation. One eye is usually affected first, and in a large percentage of cases the second eye becomes infected within five to eight days. Preauricular and submaxillary glandular involvement with tenderness is common in a high percentage of cases.

Edema of the lids and the conjunctiva, especially the transitional fold, is very frequent. The conjunctiva presents the appearance of a simple purulent conjunctivitis but with little or no formation of pus. Small areas of pseudo-membrane are not infrequent and when removed leave either small white dotted points or some bleeding points. The bulbar conjunctiva becomes edematous early. At this stage, there is some lacrimation and photophobia, but real pain and blepharo-spasm do not appear until the cornea becomes involved.

The percentage of cases in which corneal involvement occurs varies from 50% to 90%. In six to twelve days after the conjunctivitis appears, the cornea becomes involved by the appearance of discrete gray infiltrates that lie in and immediately under the epithelial layer of the cornea. They may be confined to the periphery of the cornea but in a large percentage of cases involve the pupillary area of the cornea directly. These infiltrates are discrete and seldom become complicated by an erosion of the corneal epithelium with resultant staining with fluorescein. The extent of visual impairment depends upon the number of infiltrates and their location.

CLINICAL COURSE AND TREATMENT

Clinical Course: The disease is self-limited. In the majority of instances, the conjunctivitis dis-

appears spontaneously in 14 to 18 days. The corneal complication may disappear in seven days or may last for many months. The longer they persist the greater is the danger of permanent visual impairment.

Laboratory Findings: Scrapings of the conjunctiva show a preponderance of monocytes. Cultures and smears are either negative or show the usual contaminations.

Treatment: There is no specific treatment that has shown a definite influence upon the course of the disease. During the acute stage the eyes should be kept clean with irrigations of boric acid, normal saline, or one to five thousand oxycyanid of mercury. If there is much photophobia, 1 per cent holocaine may be instilled at frequent intervals. Five per cent sulfathiazole ointment has been used, as has 5 per cent solution of sodium sulfathiazole sesquihydrate. For persistent corneal infiltrates, X-ray has seemingly yielded some results.

Period of Infectivity: It is not yet known how long the danger of transmission to others exists. At present for practical purposes a sufferer from Epidemic Kerato-conjunctivitis may be allowed to return to work when the active conjunctivitis has disappeared.

PREVENTIVE MEASURES

Preventive Measures: At present the only preventive measure known is complete isolation of infected persons. Inasmuch as the disease has been transmitted through medical personnel, the most meticulous asepsis must be insisted upon. Not only must physicians and nurses wash their hands thoroughly with soap and water after each patient, but also eye droppers solutions, instruments, etc. must be sterilized to prevent infection of non-contaminated persons. The infected individual must be told of the danger of transmission of this disease to others, not only in the plant, but even in the home surroundings. It is suggested that in industrial plants where Epidemic Kerato-conjunctivitis has made its appearance the following methods of procedure be adopted:

1. In smaller plants with a limited personnel, every individual with a red eye should be stopped at the entrance of the plant and sent direct to the plant physician to determine whether or not Epidemic Kerato-conjunctivitis is present.

In large plants where such a procedure is not possible supervisors and foremen should be instructed in detail to make rounds immedi-

ately when a fresh shift starts, and send any individual with a red eye to the medical office.

2. If the cases are to be treated at the medical department of the plant, a separate room should be set aside for such cases and in that room there must be exercised the most scrupulous asepsis even to washing off the arms of the chairs in which the patients sit. Aside from the aseptic and separate care of the recognized cases of the disease, special cleanliness of the hands of the physician in the general clinic should be maintained, with the use of an effective disinfectant between cases, lest the infection be spread by means of undiagnosed cases, especially those suspected of having foreign bodies in the eye.

3. Every case of Epidemic Kerato-conjunctivitis should be excluded from the communal facilities of the plant until the inflammation has subsided to the point where the plant physician considers it no longer transmissible.

4. Explicit instructions should be given to every individual regarding the danger of transmission, and emphasizing the decrease in the war effort as a result of the time lost from Epidemic Kerato-conjunctivitis.

5. The local health authorities should be notified immediately of the existence of individual cases.

Dr. Wilce Named Association's Liaison with Physical Fitness Committee

President McCormick has appointed Dr. J. W. Wilce, Columbus, as official representative of the Ohio State Medical Association on the State Advisory Committee on Recreation and Physical Education which is supervising the Ohio Physical Fitness Program for the State Department of Education. Appointment of a representative of the State Association on this committee was requested by Kenneth C. Ray, State Director of Education.

Dr. Wilce is exceptionally well qualified for this important assignment due to his long experience in physical education work while a member of the athletic department staff and head football coach at Ohio State University and because of his keen personal interest in medical and health problems of students, manifested in his private practice and as director of the Student Health Service, Ohio State University. He will be in a position to be of great assistance to the committee in guiding it on the medical problems and policies involved in the Physical Fitness Program, which is under the direction of Paul E. Landis of the State Department of Education.

Dr. LeFever Honored By General Assembly for 21 Years Service

Dr. E. LeFever, Glouster, member of the House of Representatives from Athens County, was honored by the 95th Ohio General Assembly on March 9, which had been previously proclaimed "LeFever Day" through the unanimous adoption of House Joint Resolution No. 28, introduced by Messrs. Buckley and Cantwell of Mahoning County, proposing to honor Dr. LeFever upon his 21st year of service in the legislature.



Dr. LeFever

Extolling the veteran legislator for his conscientious and meritorious work, the resolution states that he is the only man in the history of the General Assembly to have served for 21 years. Dr. LeFever first represented Athens County in the Ohio House of Representatives in 1900-1901. He has since held the same post in 1904-1905, 1921-1922, 1923-1934, 1939-1940, 1941-1942 and for the current session, 1943-1944. He was also a member of the State Senate, during the year 1923-1930, representing the Ninth-Fourteenth District.

During his years in the legislature Dr. LeFever has sponsored many important medical and public health measures, and has served as chairman of the Public Health committee in both the Senate and the House. A graduate of the Medical College of Ohio, Cincinnati, in 1890, he has practiced in Glouster and Athens County for over 55 years. He has always been an active member of the Athens County Medical Society and the Ohio State Medical Association.

Dr. Waggoner Is Reappointed To State Medical Board

Dr. Chester W. Waggoner, Toledo, has been reappointed by Governor John W. Bricker to membership on the State Medical Board for a term ending March 18, 1950. He has just completed seven years on the Board. A graduate of Toledo Medical College in 1906, Dr. Waggoner has held various important offices in the Academy of Medicine of Toledo and Lucas County. He is a former Councilor for the Fourth District of the Ohio State Medical Association and has represented the Association in the House of Delegates of the American Medical Association. Dr. Waggoner was President of the State Association in 1930-1931.

Procurement and Assignment Mails Questionnaire to All Ohio Physicians; Prompt Return Urged; More Medical Officers Needed; Recruiting Procedure Outlined

QUESTIONNAIRES, seeking biographical and professional information for the Procurement and Assignment Service, War Manpower Commission, have been mailed to all Ohio physicians of record who are not in military or in full-time government service, by the Ohio Procurement and Assignment Committee of which Dr. Robert Conard, Wilmington, is chairman.

As stated in the March issue of *The Journal*, when this new survey was announced, the status of many Ohio physicians has changed since the American Medical Association survey of two years ago. The purpose of this new survey is to bring the Procurement and Assignment files up to date. This new information will be of vital assistance to the committee in its efforts to retain a sufficient number of active physicians in civilian practice and to determine where there may be an under supply of physicians.

All Ohio physicians are earnestly requested to fill out the questionnaire promptly and mail it to Dr. Conard at 1005 Hartman Theater Building, Columbus. A franked envelope for returning the questionnaire accompanied each one. Any physician who does not receive a questionnaire within a reasonable time should get in touch with Dr. Conard at the above address so one can be sent to him.

RECRUITING PROGRAM STARTED

The 1943 program of recruiting additional medical officers for the Army and the Navy is well underway in Ohio. New medical officers are being commissioned each month. Ohio will be expected to furnish additional medical officers this year. A reevaluation of the status of Ohio physicians of military age has been about completed by the Ohio Procurement and Assignment Committee, with the assistance of local War Participation Committees and will be used as the basis for clearances this year.

ABOUT 10,000 NEEDED IN NATION

The 1943 recruiting program of the Surgeon General of the Army calls for the commissioning of 6,900 physicians and approximately 3,000 hospital interns and residents, it is reported in *The Journal of the American Medical Association* for March 13 in an outline of the new procedure of processing physicians, dentists and veterinarians for the Army. The program also calls for the commissioning of 4,800 dentists and 900 veterinarians.

Physicians will be procured from the following twenty states and the District of Columbia: California, Colorado, Connecticut, Illinois, Iowa, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont and Wisconsin.

The following states have already contributed more physicians to the armed forces than the sum of their 1942 and 1943 quotas and will not be called on to furnish any more physicians, except interns and residents and except special cases for specific position vacancies, during 1943: Alabama, Arizona, Delaware, Georgia, Idaho, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Tennessee, Texas, West Virginia and Wyoming.

It is stated that at present there will be no procurement of physicians, except interns and residents and in special cases for specific position vacancies, in those states not listed above.

NEW PROCEDURE SET UP

In the instructions issued by the Army it is pointed out that the Surgeon General has discontinued all medical officer recruiting boards and that under the new procurement program no physician, dentist or veterinarian will be commissioned in the armed forces of the United States until he has been declared "available" by the Procurement and Assignment Service of the War Manpower Commission.

In each state the Procurement and Assignment Service has set up three state chairmen: medical, dental and veterinary. Each of these prepares a monthly quota list of physicians, dentists and veterinarians who are apparently suitable and who are available, for commissioning in the Army of the United States. This list is submitted to the central office of the Procurement and Assignment Service which sends a communication inviting such individuals to apply for service with the armed forces. On the reply card enclosed with the invitation the individual states his preference for the Army, Navy or Medical Department of the Air Forces. These reply cards are sent by the potential applicants to the state chairmen of the Procurement and Assignment Service who in turn submit lists of such potential applicants to the Officer Procurement Service of the Army.

On receipt of such lists the officer procurement district office contacts the potential appli-

cant and arranges for an interview regarding a commission.

Applicants will be requested by the officer procurement district office to complete all papers and take all steps required of them within fourteen days of the date of such request. If this is not complied with, a report thereon will be transmitted by the officer procurement district office to the state chairman of the Procurement and Assignment Service.

The decision as to the grade and appointment to be recommended for each candidate rests with the Surgeon General, not with the Officer Procurement Service.

PROMPT RESPONSE URGED

Ohio physicians eligible for military service and who receive an invitation from the Procurement and Assignment Service, Washington, to apply for a commission are urged to do so immediately by filling out the postal card received with the invitation to apply and mailing it to Dr. Conard. Receipt of a card from Washington indicates the physician has been cleared as available. Those who may not receive an invitation but who may desire to apply, should write Dr. Conard for advice and instructions. If they can be spared from local communities, efforts will be made to have an appointment tendered them.

Ohio Doctors Totaling 33 Enter Army, Navy, Other Services Recently

Since the last issue of *The Journal*, 33 additional Ohio physicians have entered the armed forces or have taken full-time positions with Federal agencies for the duration. As of March 20, the total of Ohio physicians in the services, including non-military agencies, was 2,430. The number in the army is 2,114; navy, 275; other services, 41.

Following are the names of those entering the services during the past month, the breakdown by counties, and promotions. These lists are unofficial. If there are errors *The Journal* would appreciate being properly informed:

OHIO PHYSICIANS ENTERING SERVICES DURING PAST MONTH

Name	City	Rank
Abel, Samuel E.	Chillicothe.....	Major, U.S.A.
Arnbrecht, George L.	Youngstown.....	Capt., U.S.A.
Chapin, Louis D.	Youngstown.....	Capt., U.S.A.
Cunningham, Frank E.	Cincinnati.....	Lt. Comdr., U.S.N.
Ferguson, Robert J.	Ashland.....	1st Lt., U.S.A.
Greene, Benjamin G.	Youngstown.....	1st Lt., U.S.A.
Hamilton, James	Youngstown.....	Lt., U.S.N.
Hudson, Chas. L.	Cleveland.....	Major, U.S.A.
Hutt, Herbert B.	Youngstown.....	Capt., U.S.A.
Jackel, Merle M.	Cleveland.....	Capt., U.S.A.
Johanson, Hilding R.	Kenton.....	Lt., U.S.N.
Lopusniak, Mack S.	Springfield.....	1st Lt., U.S.A.
Mabee, H. G.	Cleveland.....	Capt., U.S.A.

Name	City	Rank
Manchester, Robert C.	Alliance.....	Lt., U.S.N.
Mattax, J. O.	Warren.....	Capt., U.S.A.
McGreer, John T.	Dayton.....	Capt., U.S.A.
Merrill, Robert	Delta.....	1st Lt., U.S.A.
Mogg, Albert M.	Youngstown.....	1st Lt., U.S.A.
Montanus, Wm. P.	Cincinnati.....	Capt., U.S.A.
Morris, Harry D.	Cleveland.....	Lt., U.S.N.
Musser, Howard Oliver	Akron.....	Lt. (j.g.), U.S.N.
Palestrant, M. W.	Columbus.....	Capt., U.S.A.
Palsis, Peter P.	Canal Fulton.....	Capt., U.S.A.
Pilloff, Benjamin	Uhrichsville.....	1st Lt., U.S.A.
Prince, Pliny A.	Toledo.....	1st Lt., U.S.A.
Schneider, Bernard	Youngstown.....	1st Lt., U.S.A.
Smith, John W.	Grand Rapids.....	Capt., U.S.A.
Wagner, Charles A.	Youngstown.....	Major, U.S.A.
White, Wm. A., Jr.	Canton.....	Lt., U.S.N.
Willard, Kenneth H.	Elyria.....	1st Lt., U.S.A.

Name	City	Service
Birmingham, Donald J.	Youngstown.....	Asst. Surgeon, U.S.P.H.S.
McClintock, Robert S.	Youngstown.....	Asst. Surgeon, U.S.P.H.S.
Oliver, Symmes F.	Cincinnati.....	Major, U.S.P.H.S.

WIN PROMOTIONS

Name	City	Promoted To..
Burnstine, Marcus D.	Columbus.....	Major, U.S.A.
Cline, Abe	Dayton.....	Comdr., U.S.N.
Danchik, S. A.	Columbus.....	Capt., U.S.A.
Davidow, Sidney L.	North Jackson.....	Capt., U.S.A.
Dix, Carr E.	Columbus.....	Major, U.S.A.
Ellis, Samuel C.	Xenia.....	Major, U.S.A.
Ersay, Emil F.	Cleveland.....	Major, U.S.A.
Farmer, Howard	Fletcher.....	Capt., U.S.A.
Goodman, L. H.	Findlay.....	Major, U.S.A.
Hall, A. A.	Columbus.....	Lt. Col., U.S.A.
Keys, Harry J., Jr.	Columbus.....	Capt., U.S.A.
McKee, Wilbur E.	Bryan.....	Capt., U.S.A.
Morse, Dan G.	Columbus.....	Major, U.S.A.
Pimsner, Arthur A.	Lakewood.....	Major, U.S.A.
Robinson, E. L.	Xenia.....	Capt., U.S.A.
Sage, Harry M.	Columbus.....	Comdr., U.S.N.
Smith, Beecher L.	Columbus.....	Lt. Col., U.S.A.
Shepard, Jos. H.	Columbus.....	Capt., U.S.A.
Tillman, N. A.	Lorain.....	Major, U.S.A.
Walker, John M.	Dayton.....	Major, U.S.A.
Woolpert, Oram C.	Columbus.....	Lt. Col., U.S.A.

TABULATION BY COUNTIES

Adams	2	Guernsey	5	Muskingum ..	7
Allen	37	Hamilton	319	Noble	1
Ashland	11	Hancock	13	Ottawa	8
Ashtabula	17	Hardin	7	Paulding	2
Athens	11	Harrison	4	Perry	4
Auglaize	5	Henry	2	Pickaway	4
Belmont	9	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	24	Holmes	2	Preble	7
Carroll	1	Huron	13	Putnam	5
Champaign ..	8	Jackson	1	Richland	40
Clark	31	Jefferson	29	Ross	17
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	17	Scioto	18
Columbiana ..	9	Lawrence	7	Seneca	12
Coshocton ...	4	Licking	17	Shelby	7
Crawford	10	Logan	9	Stark	89
Cuyahoga	578	Lorain	35	Summit	124
Darke	6	Lucas	141	Trumbull	29
Defiance	3	Madison	6	Tuscarawas ..	18
Delaware	5	Mahoning	102	Union	1
Erie	10	Marion	16	Van Wert	9
Fairfield	8	Medina	12	Vinton	2
Fayette	2	Meigs	1	Warren	3
Franklin	204	Mercer	6	Washington ..	6
Fulton	6	Miami	13	Wayne	12
Gallia	6	Monroe	1	Williams	9
Geauga	3	Montgomery ..	122	Wood	14
Greene	8	Morgan	3	Wyandot	3
		Total			2430

Effect of the War on Medical and Premedical Education Analyzed; Training and Selection of Students Outlined

EFFECTS of the war on medical and pre-medical education, with special emphasis on the Army-Navy specialized training program, were discussed by leading officials and authorities in that field at the 39th Annual Congress on Medical Education and Licensure held in Chicago on Feb. 15.

Brig. Gen. Joe N. Dalton, assistant chief of staff for personnel, Service of Supply, outlined the plan by which the Army and Navy will fill 80 per cent of the places in the country's premedical and medical courses with specially selected soldiers.

This particular phase of the specialized training program has been worked out in collaboration with leaders of the civilian medical profession, he said, explaining that "We recognize that the physician must be satisfied with the training the men in medicine received, and I assure you that there is no thought in our minds of short-cutting any of the essentials of medical education."

NO PARTIAL TRAINING

Although in the technical phases of the program—chemistry, physics, engineering, etc.—the men will be trained only until they can meet required standards, the training in the medical program will be for a degree in medicine, Gen. Dalton said. The reason for this is that "there is no such thing as a partially trained physician," he added.

"Soldiers assigned to the Army specialized training program will be on active duty as members of a unit located at a college or university," he explained. "They will be under the direction of a comandant, who will be responsible for discipline and control. They will be in uniform, and they will receive the pay and allowances of enlisted men as provided by Army regulations. Housing, feeding, instruction and other services will be provided by contract between the institution and the Army.

DAILY SCHEDULE

"These soldiers will rise at 6:30, and from then until taps at 10:30 that night, their day will be as rigorous as it was during the basic military training period. A typical week will include 24 hours of academic classroom work, including laboratory periods, and 24 hours of supervised study time. In addition, there will be six hours a week of supervised physical conditioning and about five hours a week of military instruction, which will consist of lectures, orientation work, morning formations, and some drill.

"Neither the physical nor the military instruction will require outside preparation. Their purposes are to maintain the physical condition of the men and to refresh their minds on military subjects and information. There will be sufficient free time provided each day for personal affairs, and the men will be off duty from late afternoon on Saturday until the Sunday evening meal."

STAGGERED TERMS

This Army program will be based on a series of 12-week terms, the general explained. Moreover, beginning dates of various groups at various institutions will be staggered so that at some colleges terms will start April 1, at others May 1, at still others June 1 and so on. Purpose of this is to provide ready openings for qualified men as they become available through replacement centers instead of losing them to the program through earlier assignment to troop duty or overseas service.

The training will be divided into a basic program and a series of advanced programs. The basic program for all courses except the premedical will be three terms, while the premedical program will be five. It will include the following subjects expressed in semester hours: mathematics, 8; physics, 8; chemistry, 18; zoology, 12; history, English and geography, 15; and other selected subjects such as languages, sociology, and psychology, 25. Thus the premedical program will run 64 weeks of elapsed time, including one-week furloughs between terms and will include a total of 86 semester hours.

The medical course, Gen. Dalton explained, will remain the same as at present in each of the institutions selected for this program.

On graduation from the medical program, the men will be commissioned as first lieutenants and then placed on inactive status so that they may complete a year of internship, he said.

METHOD OF SELECTION

Men for the medical program will be selected, as at present, from the premedical group, the general said. Selection for the premedical training will be done primarily during the soldier's basic training period immediately after his induction into the Army. This will be based on close observation, by his superiors, findings of tests to indicate his capacities and potentialities, military training records, and academic records. It will be done by Army screening and selection boards, which, after a personal interview with each candidate will recommend appropriate action.

Dr. Harold S. Diehl, dean of medical sciences,

University of Minnesota and member of the Directing Board of the Procurement and Assignment Service, told the Congress that the Procurement and Assignment Service recommends that 20 per cent of the places in medical classes be left open for women, and physically disqualified men, and others who wish to study medicine but cannot qualify for the Army-Navy specialized training program.

SELECTIVE SERVICE STATUS

Dr. Diehl pointed out also that the status of students now taking a premedical course was considered at a joint meeting of representatives of the War and Navy Department, Selective Service, and the Procurement and Assignment Service and that, as a result of this conference, it was recommended to accredited medical schools that they "give consideration to the early acceptance of qualified premedical . . . students for the classes of the calendar year 1944 as well as 1943. This recommendation stated that students so accepted should be clearly qualified and desirable for training in . . . professional fields. After acceptance, students who are not in an Army or Navy reserve corps should be recommended for deferment to their Selective Service Boards and these recommendations carried to appeal boards if necessary."

Not only will students thus accepted be in favorable position for deferment by their draft boards, regardless of their year in college, but if they should enter the Army or Navy their previous acceptance for medical training will be of value to the Army and Navy screening boards responsible for selecting medical students, Dr. Diehl explained.

SPECIAL ARMY COURSES

In an address on "Medicine and the War," Col. George F. Lull, of the Surgeon General's office, told the Congress of the present status of the Army Medical Department and reviewed its rapid expansion in 1942 under the medical officer recruiting program.

Col. Lull outlined the various courses in special instruction available for Army medical officers. Besides the present six-week course at the Medical Field Service School, Carlisle Barracks, Pa., there are 15 courses in various professional subjects given at civil institutions, he said. He reported also that 900 Medical Administrative Corps officers are being graduated each month from officer candidate schools.

Another speaker at the Congress was Edward C. Elliott, LL.D., chief of professional and technical training for the War Manpower Commission, who reviewed the Commission's aims in guiding professional and technical education in America so that the needs of the armed forces are satisfied with the least possible damage to national life both now and in the post-war period.

Aszling Resigns To Take Position with the Borden Company

Mr. Richard A. Aszling, who has been director of the Bureau of Public Education of the Ohio State Medical Association since June, 1939, resigned this position, effective March 15, to accept a position as director of public relations for the Mid-West Region of the Borden Company, with headquarters in Columbus.



Mr. Aszling

The resignation of Mr. Aszling was accepted with regret by The Council. While head of the Bureau of Public Education, Mr. Aszling built up the bureau from scratch and made it one

of the most important activities within the State Association. His excellent education and outstanding capabilities should make him a valuable asset to the Borden Company and assure him success in the broader field of public relations activities which his new position entails.

Until a suitable replacement can be obtained for Mr. Aszling, the work of the bureau will be carried on under the direction of the Executive Secretary Nelson and Assistant Executive Secretary Saville. Every effort will be made to keep this activity of the State Association at par and continue, as well as expand, the services which the bureau has performed.

Be Sure to Report Diseases!

Ohio physicians are urged by the State Department of Health to continue reporting all cases of reportable disease. Disease reporting is particularly important at this time, Dr. R. H. Markwith, State Director of Health, points out, as a means of preventing wartime epidemics. Reporting of communicable disease, although it may seem a minor annoyance to the busy physician at the time, eventually also benefits the medical profession through providing an accurate statistical base on which epidemiological studies can be made, the health director explains.

Surgeons To Meet, June 14-16

The Fourth International Assembly of the International College of Surgeons will be held on June 14, 15 and 16 at the Waldorf Astoria Hotel in New York City, it is announced by Dr. Fred H. Albee, president. The program will be devoted to war surgery and rehabilitation.

WAR NOTES

An Associated Press dispatch from the Tunisian front recently told of the work done by a surgical company commanded by Capt. Sol Danchik, Coumbus physician. Capt. Danchik's outfit, the report says, "drove up near the United States tanks and started work a few minutes after the major engagement began. Within the next four hours, 83 surgical cases, a number involving operations which a few years ago would probably never have been attempted outside a well-equipped hospital, had been treated."

* * *

Lt. Col. Claude S. Perry, Columbus physician who served for two and a half years as assistant director of the medical division of State Selective Service Headquarters, has been transferred to Fort Lewis, Wash., and assigned to the staff of the 203rd General Hospital. He was recently promoted to his present rank.

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Lt. Comdr. Orville Wright, Dayton physician attached to a Marine Corps unit in the South Pacific, writes thanks for his membership card in the State Association. "It's an extreme source of pleasure to receive it," he says, "and to know that being 9000 miles away from Ohio we are not forgotten as an integral part of Ohio medicine."

* * *

After the war, rigors of winter weather will probably hold no terror for Dr. Dow Allard, Portsmouth, and Dr. George Watson, Columbus. These two Ohio physicians, both captains in the Army medical corps, have been somewhere in Alaska for the past several months.

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Lt. Donald R. Sperry, Newark physician, is based on a South Pacific Island as a member of an Army hospital staff at a government construction camp, according to press reports.

* * *

Capt. Marvin G. Sadugor, Cleveland physician, returned recently from his post at a large Army hospital in the Southwest Pacific for a brief visit with his wife, Dr. Sylvia Sadugor, resident at Cleveland City Hospital. "We're pretty close to the front," he reports, "but have the best available medical equipment for our men. Blood plasma is doing wonders in speeding recoveries. The morale is excellent all around."

Lt. Raymond Tice, former resident at Akron City Hospital, was mentioned in press dispatches from New Guinea recently for his heroic action is transfusing his own blood to a dying soldier. The event occurred on New Year's Eve, when Lt. Tice and some medical corps colleagues were arranging a celebration dinner of fruitcake and grapefruit juice sent from home. Their plans were interrupted when a group of native runners arrived with a badly wounded soldier on a litter. It was obvious that a transfusion was urgently needed, and when Lt. Tice noticed from the man's dog tag that their blood groups were the same, he volunteered his blood.

* * *

Lt. Harry D. Morris, Cleveland physician now in the Navy medical corps, writes from the Navy Yard Dispensary at Charleston, S.C., where he is stationed. "This is a very interesting service," he says, "including teaching hospital corpsmen, examinations of enlisted men and officers, of marines and civilian workers in the yard, and ambulance calls and emergency treatment."

* * *

The family of Capt. John Marsico, Lorain physician, has been officially notified by the War Department that he is a prisoner of the Japanese at Ft. Mills, Phillippine Islands. He was at Corregidor when that fortress fell.

* * *

Maj. Calvin G. Jackson, Kenton physician, is also officially known to be a prisoner of the Japanese on the Philippines. He was previously reported to be missing in action, but his family recently received a telegram from the War Department advising them that Maj. Jackson has been included on a list of prisoners received from the Japanese through neutral intermediaries.

* * *

Chief nurse of the company of 25 specially trained Army nurses sent to Tunisia recently to evacuate wounded soldiers from the battle-front in air ambulances, is Lt. Catherine Grogan, of Columbus, who trained at Mt. Carmel Hospital in that city.

* * *

According to word received by his mother, Mrs. Louis P. H. Bahrenburg, Cleveland, Maj. James H. Bahrenburg, Cleveland physician, is a prisoner of the Japanese in the Philippines. Maj. Bahren-

burg's father, the late Col. Bahrenburg, was commanding officer at the Marine Hospital, Cleveland, until his death in 1940.

* * *

The Journal erroneously stated in the March issue that Dr. George W. Crile, Jr., Cleveland, had been promoted to the rank of Lt. Comdr. in the United States Navy. The newspaper clipping used as a basis for this item was wrong. Dr. Crile holds the rank of Lieutenant.

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Maj. Louis R. Kent, formerly of Youngstown City Hospital, is a regimental surgeon and commanding officer of the medical detachment, 506th Parachute Infantry Regiment, Camp Toccoa, Ga. He received his wings after making five qualifying jumps at Fort Benning, Ga. Recently he led his company on a record-breaking march of 115 miles in three days from Camp Toccoa to Atlanta.

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Maj. David W. McCreight, former Willard physician, is commanding officer of the 132nd Station Hospital, Camp Rucker, Ala. He was recently promoted to his present rank.

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A bronze plaque at Piqua Memorial Hospital proudly proclaims the names of the nine physicians and six nurses formerly on the staff of that institution who are now serving with the armed forces.

* * *

Maj. M. R. Halbouty, Beaumont, Tex., physician, has been assigned to Lockbourne Air Base, near Columbus, as base surgeon. His previous Army assignments have been at Carlisle Barracks, Pa., and at the Mayo Clinic, where he took special training.

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Lt. Herbert F. Kesinger, McArthur physician, recently completed a course in chemical warfare for Army medical officers at Edgewood Arsenal, Md.

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Lt. David Brown, Columbus physician, has been officially reported a prisoner of the Japanese, taken on the Philippines, instead of missing in action as he was previously listed, according to newspaper sources.

* * *

Capt. Harrison S. Evans, Columbus, has been transferred from Base Hospital, Syracuse, N. Y., to Drew Field Base Hospital, Tampa, Fla., and Lt. J. J. Hughes, also of Columbus, has left Montgomery, Ala., and is now at Shaw Field, South Carolina.

Lt. John Halley, Vermilion physician and formerly of Dover, is head of the laboratory section of the 145th Station Hospital, Fort Dix, N. J. Prior to his present assignment, he was teaching in the medical technicians' school of Billings General Hospital, Fort Harrison, Ind.

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Capt. George L. Hardgrave, Doylestown, physician, was recently transferred from the Station Hospital, Camp Cook, Calif., to the 19th Hospital Center, Camp White, Ore.

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Maj. Arthur A. Pimsner, Lakewood physician, is stationed at an Army post in New Guinea. He was recently promoted to his present rank.

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On completion of his flight surgeon's training at Nashville, Tenn., Army Air Center recently, Lt. B. C. Stuhlman, Dayton physician, returned to his previous station at Drew Field, Tampa, Fla.

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Capt. William I. Waters, Dayton physician and formerly of West Lafayette, is a prisoner of the Japanese on the Philippine Islands, according to information received by his family from the War Department.

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Word has been received of the promotion of Dr. Beecher L. Smith, Columbus, to the rank of Lt. Col. and of his assignment as commanding officer of the 241st Station Hospital, Camp Van Dorn, Miss.

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Maj. R. S. Rilling, Army Medical Corps, of Findlay, has arrived in North Africa, according to word received by Mrs. Rilling.

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Capt. John B. Gravis has written Columbus colleagues that he sustained a comminuted fracture of the upper tibia and fibula (left) when the command car in which he was riding skidded into a ravine at Camp Polk, La., where he is on the staff of the Station Hospital.

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Capt. Joe Edelstein, Toledo, writes from some place in England that he recently attended the Medical School, University of London, and "found it very interesting".

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The 203rd General Hospital at Fort Lewis, Wash., to which Lt. Col. Claude S. Perry, Columbus, has been assigned, is under the command of Col. P. R. Ensign, Toledo, who writes home that it is a 1,000-bed unit with 56 officers, 105 nurses and 500 enlisted men and that it can be expanded to a 2,000-bed institution in an emergency.

Current Thoughts on Medical Service

D. W. HOGUE, M.D., Springfield, O.

Councilor, Second District, Ohio State Medical Association

THE seventeenth annual meeting of the National Conference on Medical Service was held in the Palmer House, Chicago, on February 14th. The program was of unusually high order and full of constructive suggestions. We have been attending these meetings for years but it seems to us that this was one of the best.

The morning was devoted to analysis of the current trends in the control of medicine. The first paper under this general heading was by R. B. Harrison, M.D., Secretary of the State Board of Medical Examiners of Louisiana. He discussed the significance of these trends to medical licensure. He stated that through the cooperation of the American Medical Association in shortening the length of the medical course there will be a marked increase in the number of graduates without lowering the standards. Everything is being done to meet the conditions caused by the war. In some cases the needs of the public have been taken care of by the relocation of dentists and physicians. He recommended universal reciprocity between states. He pointed out that 40 states report no shortage in physicians and dentists. He complimented very highly our own Dr. H. M. Platter for his leadership in matters of licensure.

MUST KEEP STANDARDS HIGH

The next speaker was Dr. J. B. Robinson of Baltimore, Maryland, President of the American Dental Association, who spoke on the "Outlook for Dentistry." He opened by saying there is a changed attitude toward medical services and we shall have to adapt ourselves to these changes whether we like them or not. The socialization concept has come as a political theory and may disappear but reformers are demanding mass care of the sick and welfare centers are asking for an all-over health program. The Social Security Act may produce a socialization of health services. We of the professions must be ready to meet a national health program and if such a one is developed the profession must both propose and administer it. We are charged with having been selfish in our stand on the establishment of various plans. We have fought for high standards and object to any program that may lower them. Health laws are for the protection of the public and not for the doctors. The need is too often lost sight of by the public. There is a shortage due to the war but no standard should be lowered. He closed by saying, "We

are faced with a great emergency and we must use creative thinking to escape an unfortunate post-war situation."

TRENDS IN MEDICAL EDUCATION

Dr. Robinson was followed by E. J. Carey, M.D., dean, Marquette University School of Medicine, who discussed the effect of these trends upon medical education. Dr. Carey said that we must accept for the present the regimentation, the rationing, and the other things necessary to winning the war. Bismark put Germany under the heel of military government when he introduced social security and government medicine, but he did not raise the standards of living in Germany. The future of American medicine is bright if we think clearly. He stated further that there should be 5,000 more graduates as a result of telescoping the medical course. The outgoing courses should contain training in tropical diseases, in industrial and military medicine; also in the new problems arising from the diseases of old age and in the use of the new chemical remedies such as sulfa drugs. He then spoke of the political danger with which we are faced. The politicians are seeking to take over the medical services, but, he added, government power should be guided, not increased. He closed with the statement to the effect that we must supply intelligent and forceful leadership if following the war we do not have a clear medical blackout. We can win the war and then suffer defeat by adopting the medical ideology of the enemy.

HOSPITAL PROBLEMS

Dr. C. W. Munger, of New York City, chairman of the Council of Government Relations, American Hospital Association, spoke on the subject of hospital problems in connection with current trends. Dr. Munger stated that the war has caused many problems for the hospitals. There is a shortage in the staffs and as a result the services are not so good. The Social Security Act is a worry because it may undermine all that has been accomplished by group hospitalization. He stated that there are now more than 10,000,000 voluntary members to the various group hospitalization plans and it is our hope that this may save us from compulsory control. There is a great lack of nurses also, due to the needs of the Army and to the salaries paid by industry. Twenty-four thousand more nurses are required by the Army. The WAACS, the WAVES and the SPARS have interfered greatly with the

registration of young women for nursing courses, as a great many young women who otherwise would have entered nursing have been attracted by these military organizations. He stated that he believed that there will be a fairly good supply of resident internes and that the shortage will not be greater than heretofore. There have always been about 3,500 men lacking every year.

URGES NATIONAL PROGRAM

The next speaker was Dr. A. W. Adson of Rochester, Minnesota, chairman of the Medical Advisory Committee of the Division of Social Welfare of the State of Minnesota, who spoke on "The Doctor of Medicine and His Responsibility" in relation to these trends. Dr. Adson stated that with the many problems which confront the medical fraternity there is great need for unified effort by all groups. We should develop a strong national program. The physician's first duty is to devote himself to the healing of the sick, but lay groups want to supervise medical service and control the profession by political setups. The state medical associations and the American Medical Association have a great responsibility in protecting the public against "quacks." Our duty is to raise the standards of the medical schools and of hospital care. We must educate the public to the real status of the medical profession. We should and can expend adequate care for all groups and the plan for adequate diets and rehabilitation programs. Medical service must be provided for the low income groups and for catastrophic illnesses. We are now testing out various plans and each must be adapted to the needs of the community in which it operates. Services cannot always be rendered for the amount the patient can pay. He also dwelt at some length on the fact that we need to place our profession in a clear light before our legislative bodies; our courts and the public at large. It would then be easier for us to secure better legislation for the public. All of our local and state societies should cooperate in these efforts. We need constructive work on the part of the entire profession. He closed by saying, "Constant vigilance is the price of the independence of our profession."

RESOLUTION ADOPTED

After a general discussion Dr. Hutton introduced a resolution that we of the profession adopt a stronger and more concrete policy governing the practice of medicine and that we should have a committee to confer with the Social Security Board in Washington in an advisory manner. The purpose of this resolution was, he stated, that we might have more influence on future Social Security legislation as it relates to medical care. This resolution was adopted.

After lunch United States Senator Harold Burton of Ohio gave an excellent address on "America Looks Ahead." Among other things he suggested that it would be helpful if the medical profession as individuals would keep their legislators more closely informed as to the needs of the public in regard to health legislation.

THE POST-WAR ERA

The afternoon session was devoted to a consideration of medicine in the post-war era. Dr. R. K. Packard, chairman of the Medical Economics Committee of the Illinois State Medical Society, opened the session with a statement that we have two definite objectives ahead of us. One is to win the war. The other is to defeat bureaucracy. We must consider what type of life is to follow the war. We have in recent years been moving rapidly toward a centralized form of government. The social experiments have so far been failures. "The forgotten men" may prove to be those who pioneered to form this Republic. We have confessed by rationing that our people cannot be trusted to run the country. We have not solved any of our labor or farm problems. We have just made more bureaus. We now have a "Government of the bureau, for the bureau, and by the bureau." In reference to the many government hospitals that have been and more that are being built he said: "These hospitals may continue to care for the soldiers and for families after the war. As a result many medical officers may stay in the Army Services as there may not be so much private practice. We may defeat the Axis but lose our manner of practice and our way of life."

The next speaker was Dr. C. H. McCaskey, president of the Indiana State Medical Association, who opened his address by making the statement that at the end of this war there will be 16,000,000 veterans for the Spanish-American War, World War I and World War II. These with their families will be entitled to hospital and medical services in the government hospitals. This he believes will create a very acute problem for the men in private practice. He pointed out the enormous expansion of the government hospitalization plans and the great increase in the number of such boards.

WHAT MEDICINE SHOULD DO

Dr. C. F. Vohs, chairman of the Medical Economics Committee of the Missouri State Medical Association, and one of the pioneers in this organization, gave a resumé of what had been accomplished in the various fields of medical economics. As a background to a discussion of the extension of the Social Security program, Dr. R. D. Bernard, chairman of the Committee on Public Policy and Legislation of the Iowa State

Medical Society stressed the importance of the physician's making himself felt in the adoption of laws governing the practice of medicine.

In the discussion following the afternoon program Dr. Scott of New Jersey stated that the New Jersey Medical Society has made a very definite contribution to the solution of the medical care problem. The New Jersey Medical Association set out to give adequate medical care under the control of the medical profession and he reported that it has been successful in accomplishing the purpose for which it was organized. Dr. McCann of Massachusetts said that we must be ready to put in operation a prepayment medical plan for medical care at the close of this war or we shall be faced with many serious problems.

Mr. Laux, secretary of Michigan Medical Ser-

vice reported that they were now out of the red and that for several months had been operating successfully. Among those present from Ohio were Dr. H. M. Platter, Columbus; Dr. A. A. Brindley, Toledo, Councilor of the Fourth District; Dr. Lawrence Miller, Toledo, and Mr. George Cooley, Executive Secretary, Toledo Academy of Medicine, and the author.

Thus, there assembled from all parts of the United States, men with experience in the things that go to make up the current trends for the control of medical practice. These men were really leaders, quite aware of the directions of social evolution and are determined that the profession shall assume the leadership and the responsibilities which its education and the privileges granted to it by the state make imperative for it to do.

REPORT ON ANNUAL MEETING TO BE PUBLISHED IN MAY ISSUE

Complete details regarding the Ninety-Seventh Annual Meeting of the Ohio State Medical Association, including the minutes of the sessions of the House of Delegates, held in Columbus on March 30 and 31, will be published in the May issue of The Journal.

Dr. Mundy Represents State Association on Rural Post-war Planning Groups

Dr. Carll S. Mundy, Toledo, has been appointed by President McCormick as the official representative of the Ohio State Medical Association on two health sub-committees of two farm groups which are studying post-war programs affecting the rural population of Ohio and the Middlewest.

One group is the Midwest Regional Post-War Sub-Committee on Rural Health Services Planning which is part of a planning committee established by the United States Department of Agriculture. Eight states are in the Midwest region, namely: Ohio, Indiana, Illinois, Missouri, Iowa, Michigan, Wisconsin and Minnesota. Conferences of the sub-committee are held at Chicago.

Dr. Mundy also is a member of the State Land-Use Planning Sub-Committee on Rural Health. The State Land-Use Planning Committee is sponsored jointly by the Extension Service, College of Agriculture, Ohio State University, and the United States Department of Agriculture.

A former president of the Toledo Academy of Medicine, Dr. Mundy is exceptionally well qualified for these important posts where he will be in a position to act as a liaison between the Ohio State Medical Association and the groups interested in rural postwar planning and to offer advice on health and medical questions, especially matters of policy. Dr. Mundy succeeds Dr. Dow Allard, Portsmouth, now a Captain in the Army Medical Corps.

Examining Physicians Praised in New Selective Service Bulletin, No. 3

Medical Circular No. 3, to be used as a guide by physicians and dentists who are examining for local Selective Service Boards so all selectees will be physically examined and processed locally in like manner, has just been issued by National Headquarters of the Selective Service System.

Commenting on the circular, Col. L. G. Rowntree, chief, Medical Division, National Headquarters, Selective Service System, made the following statement regarding the work which has been done by examining physicians and dentists:

"Selective Service is much impressed with the devotion and the patriotism of its examining physicians and dentists . . . these professional men in Selective Service are making the preliminary examination of registrants who are to be inducted into all branches of the military service. This represents a national service of great magnitude and importance."

The bulletin itself carries the following tribute to the examining physicians and dentists: "This Medical Circular No. 3 affords the welcomed opportunity to express to the examining physicians and dentists of the Selective Service System, the appreciation of this Headquarters for their loyal and valuable professional service which has proved of the utmost importance in helping the Nation to meet its wartime needs."

Applicants Totaling 281 Examined by State Medical Board in March; Questions Asked Medical School Graduates

THE semi-annual examinations of the State Medical Board at Columbus, March 16-19, were taken by 281 applicants, of whom 226 sought licenses to practice medicine and surgery.

There were 13 applicants for osteopathic licenses. Other applicants included: 6 chiropractors, 13 mechano-therapists, 17 chiropodists, and 6 masseurs.

Of the 226 medical school graduates who took the examinations, 64 were from Western Reserve University School of Medicine; 67, Ohio State University College of Medicine; 70, University of Cincinnati College of Medicine, and 25 from out-of-state medical schools.

Results of the examinations will be announced during a meeting of the State Medical Board at Columbus, April 27.

Questions asked those who took the medical and surgical examinations were as follows:

ANATOMY

1. Locate the following muscles:

Multifidus	Pyramidalis
Scaleni	Tongus colli
Mylohyoidens	Pterygoid
2. Describe the structure of the kidney.
3. Give source and distribution of the following nerves:

Radial
Taryngeal
Glossopharyngeal
4. Draw diagram showing structures encountered in amputation of the leg at upper third of femur.
5. Name and locate the sinuses emptying into the nasal cavity.

PHYSIOLOGY

1. Describe a typical human tissue cell.
2. What is the function of the bony system of the human body? Specify particularly the function of the various types of bones.
3. Compare the function of skeletal and visceral muscles.
4. What is the function of a nerve ganglion?
5. What is the function of the medulla oblongata?
6. What is the function of serous membrane?
7. Name and give function of the valves of the human heart.
8. Discuss the function of the liver.
9. Discuss the production of the human voice.
10. Define:

(a) exophthalmus
(b) ovulation
(c) lymph
(d) vitreous body
(e) hypertonia

DIAGNOSIS

1. Give signs and symptoms of so-called Bantis disease.
2. Give signs and symptoms of hyperinculinism.
3. Differentiate diabetes insipidus from diabetes mellitus.
4. Differentiate chronic glomerular nephritis from thyroid conditions in which albumin is found in the urine.
5. What conditions are associated with

(a) nystagmus	(b) scanning speech
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6. Give signs and symptoms of chronic diffuse bronchitis and bronchiectasis.
7. Give signs and symptoms and blood findings in pernicious anemia (Addisonian type) and aplastic anemia.
8. What information would you obtain from a blood sedimentation rate?
9. If you found bright red blood cells in the urine over a period of weeks, what conditions would you look for?
10. Give normal blood—

(1) sugar	(3) creatinin
(2) NPN	(4) chlorides

CHEMISTRY

1. Distinguish between organic and inorganic chemistry.
2. Name the three ferments of the pancreatic juice and give chemical action of each.

3. What is determined by chemical analysis of the gastric contents?
4. Give symptoms and treatment of:

(a) iodine poisoning	(b) strychnine poisoning
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5. Give function in the body of sodium; calcium; iron; iodine.

MATERIA MEDICA & THERAPEUTICS

1. What are the indications for the use of calcium? Name the preparations and give dose of each.
2. What are adsorbents? Discuss their therapeutics and preparations.
3. Name ten drugs that, when ingested, may cause skin eruptions.

What drugs are indicated in:

(1) otitis media	(4) myxedema
(2) schizophrenia	(5) menorrhagia
(3) epilepsy	
5. Discuss therapeutics and toxicology of sulfur.
6. Name five drugs used to lower blood pressure. Give mode of action of each drug.
7. What are the indications for and preparations of the following:

(1) resorcinol	(4) dicoumarin
(2) lobelia	(5) potassium chlorate
(3) chloral hydrate	
8. Name the five most important drugs used in the armed forces. Give action of each drug.
9. What are the therapeutics, toxicology, preparations and dosage of antimony
10. Write a prescription for simple diarrhoea in an adult.

MATERIA (Homeopathic) MEDICA

1. How are fresh plant tinctures made? How are triturations made? How are potencies or attenuations made?
2. Compare the fever of aconite, belladonna and gelsemium.
3. Give the respiratory indication for antimonium tartaricum and bryonia.
4. Give the indications for four remedies useful in hemorrhage.
5. Give the indications for four remedies useful in obstetrics.
6. What are the polycrysts?
7. Give the indications for the use of ipecacuanha in gastric conditions.
8. Compare the use of apis mellifica, arnica and hypericum in a patient whose main complaint is pain.
9. What remedies would you use and why in scarlet fever?
10. Compare the mercury preparations in tonsillitis.

PRACTICE

1. A young adult has a pulmonary hemorrhage, what would be your procedures:

(a) immediate treatment
(b) subsequent management of the case
2. Give the causes and clinical symptoms indicating that a patient is dehydrated. Discuss the treatment.
3. A patient is brought to the hospital emergency room with a suspicion of attempted suicide. The surroundings suggest monoxide poisoning or an overdose of a barbiturate compound. Discuss your management of such a case.
4. Discuss blood transfusion and the use of whole blood, plasma, fluid or dried. Give indications, advantages and disadvantages of each.
5. Give the symptoms and treatment of pylorospasm in infancy. What other pathologic condition must be eliminated as possibly present and how may this be done?
6. Discuss the treatment of eczema in a child of four months, systemic and local.
7. As a general practitioner, on what grounds would you advise tonsillectomy in a child of five years of age?
8. Describe the neurologic syndromes with etiology, clinical symptoms and treatment resulting from:

(a) a metallic poison
(b) a blood dyscrasia
(c) a chronic infective organism
9. What is meant by the term "toxic psychosis"? How would you recognize such a condition and give treatment.
10. In a case of paralysis of one arm in a neurotic individual, discuss the question of whether it may be a neurosis or organic and give etiology and treatment in each.

BACTERIOLOGY, PATHOLOGY & HYGIENE

1. Discuss the general differences between bacterial and virus diseases. Give three examples of each illustrating such differences.

2. Describe a laboratory method of establishing an early diagnosis of pregnancy.
3. Give the methods of transmission in typhoid fever, diphtheria, influenza, tuberculosis and small-pox. Outline briefly general measures to prevent such transmission.
4. What prophylactic measures may be of use in controlling venereal diseases, especially in military service?
5. What dietary deficiencies are responsible for
 - (a) scurvy
 - (b) rickets
 - (c) beri-beri
 - (d) hemorrhagic tendencies in pregnancy
 - (e) alcoholic neuritis
6. Describe the histologic changes in the heart muscle following arterial hypertension and discuss the unfavorable results.
7. Define the term "allergy." Give three illustrations of allergic manifestations and method of testing for each.
8. Describe the pathology of acute glomerular nephritis and discuss relation to the clinical symptoms.
9. Describe the pathology of atrophic cirrhosis of the liver and its relation to the clinical symptoms.
10. Define the terms:

(a) hypertrophy	(d) anaplasia
(b) hyperplasia	(e) metastasis
(c) atrophy	

SURGERY

1. Outline the treatment of the common fractures of the lower end of the radius.
2. Discuss the indications for and the results of splenectomy.
3. Discuss the significance and management of tympanites after a laparotomy.
4. What are the causes, symptoms, prognosis and treatment of compression fracture of the vertebral bodies?
5. What are the indications for surgical treatment of duodenal ulcer?
6. Discuss the value of heliotherapy in the treatment of surgical conditions.
7. What harm may result from Myoma of the uterus other than pressure upon various organs?
8. Discuss increased intracranial pressure:
 - (a) due to trauma
 - (b) due to neoplasm
9. Discuss:
 - (a) the pathology of Chronic cystic Mastitis (Abnormal involution)
 - (b) outline the treatment:
 - (1) in a single woman of thirty
 - (2) in a married woman of forty
 - (3) in either of fifty
10. What are the chief causes of mortality after operations for the following conditions:
 - (a) Hypertrophied prostate gland
 - (b) Exophthalmic goiter
 - (c) Stone in the common bile duct
 - (d) Acute appendicitis
 - (e) Inguinal hernia in old patients

OBSTETRICS & GYNECOLOGY

1. Name five conditions complicating pregnancy which may result in sudden death of the mother. How recognize and treat such?
2. Describe the pelvic floor; perineum. How may each affect or be affected by parturition?
3. Name five causes of convulsions and coma during pregnancy and differentiate each from eclampsia.
4. State the diseases or conditions which can cause the following symptoms in a pregnant woman:
 - (a) increased vaginal discharge with a small amount of blood
 - (b) edema of feet, hands and eyelids
 - (c) jaundice
 - (d) pruritis
5. Discuss the etiology and treatment of premature births.

SPECIALTIES

1. Define and give causes, diagnosis and treatment of glaucoma.
2. Define and give causes and treatment of angio-neurotic edema.
3. Give differential diagnosis between ulcer and cancer of the stomach.
4. Define the term "electrocardiogram." How is an electrocardiogram obtained and give its normal features.
5. What is chordee? Give its cause and treatment.

Cleveland—"Recent Observation of War Wounds in England and Their Care," was the subject of the annual Frank E. Bunts Lecture, delivered by Dr. J. Eastman Sheehan, New York City, at the Cleveland Clinic, February 26.

Physicians Urged to Cooperate On P.T.A. Summer Round-Ups

Parent-Teacher Associations in Ohio and county medical societies have initiated plans for the 1943 Summer Round-Ups or health examination programs for pre-school children, which, as in past years, will be conducted during May.

These cooperative projects, sponsored jointly by the P.T.A. and the medical profession, have been conducted in many Ohio counties for from 10 to 15 years. The plan has the indorsement of both the American Medical Association and The Council of The Ohio State Medical Association.

Announcing plans for the 1943 Round-Up, Mrs. L. D. Martin, Toledo, chairman of the health service department of the Ohio Congress of Parents and Teachers, said:

"This year the shortage of doctors will make conducting the Round-Up a bit difficult. However, we hope the fine cooperation which we have always received from your organization will be continued and the doctors will take time off from the home front and give these small boys and girls of ours an opportunity for sound physical health.

"While battles are being won or lost, children's bones are growing crooked or straight, and we must see that they have the chance to grow straight."

The Summer Round-Up is one of the major projects of the National Congress of Parents and Teachers, Mrs. Martin explained, "because, in its endeavor to promote the highest interests of the child, it feels starting to school with a healthy body leads not only to better educational growth but to moral and spiritual growth also."

New Journal

Gastroenterology is the new official journal of the Gastroenterological Association which is to be under the Editorship of Dr. W. C. Alvarez assisted by Dr. A. C. Ivy. It makes its appearance with the January issue and is to be issued monthly with a subscription price of \$6.00 per year. The standards set by the first issue are exceedingly high. It has always seemed to us that there was a crying need for an intelligent journal in the field of digestion and nutrition and so we have in this first number: a paper on "The Coated Tongue" by Burrill B. Crohn, M.D., and one by A. J. Carlson, M.D., on "The Problem of Optimum Nutrition." These are exactly the type of papers which we have in mind. Being owned and controlled by such a distinguished and learned society it should fill a permanent place among the medical publications of America.

Advice to Physicians on Conservation of Rubber Goods Offered by WPB in Article in Hospital Journal

SPECIAL efforts on the part of physicians to assist in the conservation of rubber have been requested by officials of the War Production Board. Since many high grade rubber goods are used in the practice of medicine and surgery, an article on ways and means of conserving these items was prepared by Dewey H. Palmer, special consultant in the Conservation Division of the WPB, and was published recently by *Hospitals*, publication of the American Hospital Association. Quoted below are sections of the article which are of particular interest to physicians.

"The greatest enemies to the long life of rubber are sunlight, heat, oils, greases, and solvents. The ultraviolet rays of the sun penetrate the surface of rubber, causing it to oxidize. Excessive heat causes rapid deterioration. Vegetable oils, cottonseed oil, mineral oil, greases, turpentine, gasoline, chloroform, and naphtha cause swelling and softening, making rubber more susceptible to mechanical damage.

GENERAL RULES

"To preserve rubber goods the following general rules should be observed:

"1. Clean and dry rubber goods thoroughly before storage.

"2. Store in a cool, dark, and dry room, away from sources of heat. (New rubber goods should be kept in their boxes.)

"3. Lay rubber articles flat when storing, allowing them to assume their natural position. Rubber under a permanent strain loses its life and will set up a deformation which may cause it to crack.

"4. Wash with soap and water or alcohol as soon as possible after contact with oils, greases, and solvents.

"5. Handle rubber goods carefully and avoid puncturing with sharp instruments or finger nails.

CARE OF RUBBER GLOVES

"Surgeons' rubber gloves are usually discarded as a result of tears, cuts, and punctures which occur while in use or in the process of cleaning and testing. How the quality and condition of the rubber is related to its resistance to tearing and puncturing is not definitely established. It seems likely, however, that as gloves are subjected to repeated sterilization they become less resistant to tearing, while their resistance to puncturing may not change significantly.

"Every precaution should be taken to reduce the possibility of mechanical damage to a minimum. Rubber gloves must be put on and re-

moved carefully to avoid tearing. When drawing on or removing the gloves, care should be taken that the finger nails of the person holding the gloves do not tear or puncture the rubber. Those surgeons who, after an operation, literally 'rip' gloves off their hands and throw them aside should realize that this is a particularly wasteful practice.

"Because of the high quality rubber used in them, it is particularly necessary that rubber gloves be repaired where possible and their life extended to a maximum. Cuts, tears, and punctures, if not too large, can be repaired by applying a patch of thin sheet rubber with a general purpose rubber cement. The cuffs of discarded gloves can be used to make such patches or thin rubber sheeting may be obtained for this purpose.

HOW TO PATCH ARTICLES

"The directions given for patching rubber gloves will also apply to hot water bottles and ice packs. Take care to dry the rubber surface thoroughly before making the repair and if the articles can be turned inside out, apply the patch to the inside. The rubber in such thick rubber goods is usually thick enough to be repaired with inner tube patching material or rubber from old discarded bottles. Emergency repairs can frequently be made by using adhesive plaster.

"The shortage of glycerin and gums has made it increasingly difficult for doctors in hospitals to obtain adequate supplies of these materials for lubricating gloves, catheters, and other surgical rubber products. Realizing this situation, the Canadian Hospital Council requested the Ontario College of Pharmacy to investigate and develop if possible a product which would not require either glycerin or gum and would be satisfactory to the profession. Such a product was developed by D. E. MacKenzie, assistant professor of pharmacy in the Ontario College of Pharmacy. The method of preparing the material was described in the July, 1942, edition of the *Canadian Medical Association Journal*. The following is quoted from that article:

FORMULA IS SUGGESTED

"It was found that the following formula would meet these requirements:

Starch.....	7 oz. 135 grains
Distilled water.....	1 gal.
Sodium lactate (60 per cent).....	90 fl. oz.
Mercuric oxycyanide.....	280 grains

"Dissolve the mercuric oxycyanide (B.P.) (Sol.-18W) in part of the distilled water, using

the remainder of the water to form a smooth paste with the starch. Combine these two portions with the sodium lactate and heat in a steam kettle or some other device capable of supplying a temperature of approximately 100° C. The heating, with moderate agitation, is continued until a translucent jelly is formed, at which point the product can be at once transferred to suitable containers.

"The product is best sterilized after it has been placed in containers and, following latest approved procedure, can be rendered sterile by autoclaving at a steam pressure of 10 lb. (115° C. or 240° F.) for a period of 30 minutes."

In addition to the advice quoted here, the Palmer article also contains detailed suggestions on the proper sterilization and cleaning of rubber gloves and rubber tubing which would be of value to technicians and nurses charged with these duties. It shows, too, how such other hospital items as rubber-tired rollers and wheels and rubber sheeting may best be conserved.

Reprints of the full article may be obtained by writing to the Simplification Branch, Conservation Division, War Production Board, 11th & H Sts., Washington, D. C.

Rapid Treatment Centers for Syphilis To Be Opened in 30 Areas

In order to clarify the policies and responsibilities of the U. S. Public Health Service in the new nationwide system of Rapid Treatment Centers for persons infected with venereal disease, a special edition of the "VD War Letter," published by the Division of Venereal Diseases of the Public Health Service, was issued last month. It revealed the following facts:

More than 30 rapid treatment centers will be in operation by the end of 1943. Approximately 15,000 infected persons will be admitted to the centers and rendered non-infectious, their disease either arrested or cured, during the war.

The Rapid Treatment Center program is an outgrowth of the national venereal disease control program begun in 1938, and it has been developed jointly by state health departments, the Office of Defense Health and Welfare, the U. S. Public Health Service, and the Federal Works Agency. It is intended to be "a direct and realistic effort to combat a definite wartime threat to our national strength."

The basic responsibility of the Public Health Service is "to provide consultation service to other agencies cooperating in the program and to furnish specially trained physicians, nurses, and technical personnel to operate the centers."

Four rapid treatment plans, ranging from the one-day massive dose with fever therapy to the six-to-eight-week multiple injection method, are

being used at the present time in syphilis control. No one of these has been accepted as standard by the Public Health Service or by the medical profession. All of the current methods, or modifications of them, are used or considered for use at the rapid treatment centers.

Length of a patient's stay in one of these hospitals will depend on the nature of his disease, the type of treatment elected, his physical condition and the length of the observation period. It is expected that the maximum length of stay will not exceed 10 weeks.

Every syphilis patient admitted to one of the centers is given a complete medical examination to determine his physical capacity to benefit from rapid treatment and to aid in deciding upon the method to be used.

Fifteen rapid treatment centers were in operation as of Feb. 13, and eight more had been approved but had not yet begun operations. Locations of those which had started by that date and their capacities are: Phoenix, Arizona, 56; Denver, Colo., 40; Chicago, 350; Indianapolis, 25; Leesville, La., 75; Monett, Mo., 25; Rush Springs, Okla., 150; Aguidilla, Puerto Rico, 300; Caguas, Puerto Rico, 150; Goldville, S. Car., 125; Pontiac, S. Car., 125; Knoxville, Tenn., 50; Chattanooga, Tenn., 150; Houston, Tex., 60; and Salt Lake City, Utah, 40.

Those proposed include: Ocala, Fla., 100; Wakulla, Fla., 100; New Orleans, 200; McLain, Miss., 60; Balboa Heights, Panama, 200; Memphis, Tenn., 150; Nashville, Tenn., 150; and St. Thomas, Virgin Islands, 25.

Sharp and Dohme Co. Honored

Army-Navy "E" awards were presented to both the Sharp and Dohme pharmaceutical laboratories and biological laboratories at Philadelphia and nearby Glenolden, Pa., recently for their production of blood plasma and other medical supplies for the armed forces. Two ceremonies were held, at both of which Brig. Gen. Hugh J. Morgan, chief consultant in medicine, Office of the Surgeon General, made the awards. Gen. Morgan termed the company's "pioneer work" in connection with dried blood plasma "one of the outstanding contributions of biological manufacturing."

Ohio's relief load continued to decline during January, despite the slow liquidation of the W.P.A. program, and hit the lowest point in its history with only 22,500 recipients, State Welfare Director Charles L. Sherwood recently reported. January relief costs of \$724,000 also hit a new low for the nine years of poor relief in the state.

In Memoriam

James Kennedy Ashburn, M. D., Batavia; Medical College of Ohio, Cincinnati, 1900; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died February 9. Dr. Ashburn first practiced in Newtonsville. In 1901 he entered the United States Army, serving at several army posts in the Western States and for 18 months in the Philippine Islands. Dr. Ashburn returned to private practice at Batavia, being active there for about 40 years. Surviving are his widow, a son, a daughter, a sister and two brothers.

David F. Banker, M.D., Canton; Western Reserve University School of Medicine, 1900; aged 75; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 5. Dr. Banker practiced in Canton for 40 years. His widow survives.

Sylvester Robert Best, M.D., Gary, Ind.; Ohio Medical University, Columbus, 1898; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died February 13. Dr. Best formerly practiced in Knox County. His widow, a daughter, a son and three brothers survive.

Harry Walrod Blair, M.D., Mt. Vernon; University of Wooster, Medical Department, Cleveland, 1892; aged 78; member of the Ohio State Medical Association and the American Medical Association; died February 19. Dr. Blair practiced in Knox County for 49 years and was health commissioner of Mt. Vernon for 36 years. He was a captain in the Medical Corps of the U. S. Army during World War I. His widow and three children survive.

John F. Culler, M.D., Lucas; Jefferson Medical College of Philadelphia, 1886; aged 83; former member of the Ohio State Medical Association and the American Medical Association; died February 24. A native of Ashland County, Dr. Culler had practiced in Lucas and that county for 57 years. Surviving are his widow, a daughter, a sister and three brothers.

Royce Day Fry, M.D., Euclid; Western Reserve University School of Medicine, 1883; aged 88; former member of the Ohio State Medical Association and the American Medical Association; died February 21. Dr. Fry retired five years ago after having practiced in Cleveland for over 50 years. He served in the Army Medical Corps during the Spanish-American War. His widow survives.

KILLED IN ACTION

Lt. (j. g.) Pattison Fulton, Cincinnati; Hahnemann Medical School, Philadelphia, 1940; age 28; died Dec. 3, 1942, at Guadalcanal, Solomon Islands, as the result of shrapnel wounds received in action with the Japanese two days earlier. Lt. Fulton was sworn in as an assistant surgeon in the Naval Reserve on April 14, 1942, and on April 21 he reported for duty at U. S. Naval Hospital, San Diego. Later he was detached to the Amphibious Corps., Pacific Fleet, and in May he was transferred to further active duty with a Marines Division. Following an intensive course in military subjects such as machine gunnery, he was sent overseas to serve with the first invasion forces to occupy the Solomon Islands. He landed at Tulagi on Aug. 7, 1942. Lt. Fulton's premedical training was received at the University of Wisconsin. He served his internship at Bethesda Hospital, Cincinnati, and then became an assistant in the department of pathology at Good Samaritan Hospital, Cincinnati. He is survived by his mother and father, a brother, Lt. James Fulton, stationed at the Submarine Training Center, Miami, Fla., and one sister.

John Patrick Gavan, M.D., Cleveland; St. Louis University School of Medicine, 1929; aged 41; former member of the Ohio State Medical Association and the American Medical Association; died February 22, at Mitchell Field, Long Island, N. Y., where he was on active duty as a captain in the Medical Corps of the Army Air Force. Dr. Gavan was commissioned last September. He had practiced in Cleveland for 12 years, and was a member of the staff of St. John's Hospital. Surviving are his widow, a daughter, a son, his mother, two sisters and a brother.

William Graf, M.D., Perrysville; Medical College of Ohio, Cincinnati, 1900; age 75; former member of the Ohio State Medical Association and the American Medical Association; died March 9. Dr. Graf practiced at Mt. Hope for 20 years, and after a year in Nashville, and a year in Loudonville, moved to Perrysville where he had been located since Nov. 1, 1922. His widow, a daughter and a son survive.

Charles Burley Ham, M.D., Toledo; Bellevue Hospital Medical College, New York, 1889; aged

83; died February 26. Dr. Ham had retired after practicing in Toledo for 25 years. Two sisters survive.

Alvah Alexander Howell, M.D., New Lebanon; Ohio State University College of Medicine, 1911; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died February 15. Dr. Howell practiced at Johnsville and New Lebanon, Montgomery County for 30 years. His widow, a daughter and a brother survive.

George B. Kistler, M.D., Newcomerstown; Columbus Medical College, 1892; aged 77; member of the Ohio State Medical Association and the American Medical Association; died February 15. Dr. Kistler practiced in Conesville for 7 years and in Newcomerstown for 43 years. Surviving are his son, Dr. John B. Kistler, Newcomerstown; three sisters and three brothers, one of whom is Dr. Henry B. Kistler, Newcomerstown.

David S. Lillibridge, M.D., Mesopotamia; Western Reserve University School of Medicine, 1891; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died February 28. Dr. Lillibridge practiced in northern Trumbull County for over 50 years. His widow and a son survive.

John William Melick, M.D., Columbus; Ohio Medical University, Columbus, 1896; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died February 1. Dr. Melick retired five years ago after having practiced in Columbus for 36 years. He was previously located in Frazeyburg. Surviving are his widow, a daughter and three sisters.

Ralph Luther Morse, M.D., Norwalk; University of Michigan Medical School, 1902; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died February 21. Dr. Morse had practiced in Norwalk for 39 years. He was a former president of the Memorial Hospital Association and a director of the Huron County Banking Company. An enthusiastic camera fan, Dr. Morse was one of the founders of the Firelands Camera Club. His widow and a sister survive.

Milton Jay Parke, M.D., Cleveland; Western Reserve University School of Medicine, 1890; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died February 9. One of Cleveland's oldest physicians, Dr. Parke began practice there in 1890. He was formerly on the staff at St. Vincent Charity Hospital and St. John's Hospital. A sister survives.

In the March issue of The Journal there appeared an article stating that Lt. Comdr. Malcom L. Pratt, Bellefontaine physician, was killed by enemy action in the Solomon Islands. So far as official notice by the Navy Department is concerned, this information was erroneous. Dr. Pratt still is listed by the Navy as "missing in action" since August 12, 1942, and there has been no official notice listing him as deceased.

Clarence Elmer Smith, M.D., Massillon; Ohio Medical University, Columbus, 1902; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 9. Dr. Smith practiced in Massillon for 41 years. He was a member of the staff of the Massillon City Hospital. Dr. Smith was a 32nd degree Mason. His widow and a brother survive.

Samuel Henry Smith, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1907; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died February 6. A member of the staff at Good Samaritan Hospital for 20 years, Dr. Smith had practiced in Cincinnati for 35 years.

Clarke Sullivan, M.D., Dayton; Chicago Homeopathic Medical College, 1904; aged 65; member of the Ohio State Medical Association and the American Medical Association; died February 13. Dr. Sullivan was a member of the staff and the board of trustees of Miami Valley Hospital, Dayton, where he practiced for 30 years. Surviving are his widow; a daughter, a son and two brothers.

Willis Stimson Taylor, M.D., Columbus; Eclectic Medical College, Cincinnati, 1885; aged 83; died March 14. Dr. Taylor formerly practiced in Alexandria, Licking County. His widow, a daughter, three sisters, and a brother, Dr. Ralph B. Taylor, Columbus, survive.

Stanley John Zolnowski, M.D., Cleveland; St. Louis University School of Medicine, 1928; aged 41; former member of the Ohio State Medical Association and former Fellow of the American Medical Association; died January 6. Dr. Zolnowski practiced in Cleveland for 11 years.

An acting county coroner who has furnished medical care to an indigent person may be compensated therefor from poor relief funds if the necessary procedure for obtaining such care has been followed, according to Opinion No. 5662 recently issued by Attorney-General Thomas J. Herbert.

Two New Pamphlets Available at State Department of Health

Two new health education pamphlets—one on "Maternal Care" and the other on "Forming Good Food Habits and Correcting Poor Ones"—have recently been published by the Ohio Department of Health. Physicians may obtain copies for their patients by addressing requests to Dr. R. H. Markwith, State Director of Health, Columbus.

The pamphlet on maternal care was prepared by Dr. Susan P. Souther, chief of the division of child hygiene, in collaboration with a group of Ohio obstetricians and gynecologists. It contains complete and clearly written prenatal and post-natal advice to the mother.

Martha Koehne, Ph.D., nutritionist for the health department, prepared the booklet on eating habits. It contains much valuable advice for parents on starting children on the road to health through good nutrition.

These two new publications are added to a list of similar educational aids recently prepared by the State Health Department, among which are "The Home-Packed Lunch for the Defense Workers," "Precious Vitamins and Minerals," "Food for the Office Worker," "The Noon Meal for the School Child," and "The Immature Infant and His Nursing Care."

Industrial Physicians and Hygienists Plan War Conference, May 24-27

Medical, surgical and industrial hygiene experts responsible for safeguarding the well-being of more than 20,000,000 industrial workers have agreed to pool their knowledge and exchange their experiences regarding the new and complex problems of today's wartime production.

For this purpose their organization—The American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, and the National Conference of Governmental Hygienists—are combining their annual meetings in a four-day "War Conference" at Rochester, New York, May 24-27, 1943.

Among the problems to be discussed from a practical standpoint are:

The mass entry of women into industry; older-age employees, with their various associated problems; proper placement and employability considerations of the 4F rejectees; rehabilitation and proper employment of those already discharged from the military services because of disabling conditions; toxic and other hazards from new substances, new processes, and the use of substitute materials; absenteeism; fatigue; nutrition; effects of long hours; double shifts; two-job workers; overtime; increased industrial

accident rates; advances in the treatment of illnesses and injuries.

Dr. William A. Sawyer, medical director, Eastman Kodak, is General Chairman; Dr. James H. Sterner and Lieut. Comm. J. J. Bloomfield are arranging the programs for the industrial hygienists. All who are interested in the problems of industrial health and their solution are invited to attend. No registration fee is required.

The Board of Regents of the American College of Physicians has announced the cancellation of the 1943 annual session which was scheduled to be held in Philadelphia, April 13-16.

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Do You Know - - -

Dr. C. C. Sherburne, Columbus, President-Elect of the Ohio State Medical Association, was one of the speakers at the 31st Annual Farmers' Week of the Ohio State University College of Agriculture, January 26-28 at Columbus. His topic was: "Wartime Medical and Health Problems in Ohio."

* * *

Dr. Roy W. Scott, professor of clinical medicine, Western Reserve University, Cleveland, is the new president of the American Heart Association.

* * *

Births recorded in Ohio in 1942 totalled 144,742, well over the previous record set in 1924, when 132,048 babies were born in the state. Births in 1941 numbered 122,456. The birth rate rose to 20.8 per 1,000 last year, as compared with 17.7 in 1941, but failed to reach the high set in 1918, when the rate was 22.2.

* * *

Dr. William Thornton, vice-president of the Medical Society of the District of Columbia, 1820-1823, was the architect of the United States Capitol Building, Washington, D. C.

* * *

A series of 27 lectures on health topics by local physicians arranged in cooperation with the health education committee of the Cleveland Academy of Medicine, are being delivered over WBOE, the local school board radio station, for junior science classes.

* * *

The American Urological Association has cancelled its annual meeting which was scheduled to be held in St. Louis in June. The \$500 Research Prize annually offered by the Association will not be awarded this year.

Richard H. Hildebrant, Wilmington, secretary of the State Industrial Commission, has been appointed a member of the First District Court of Appeals.

* * *

Dr. Henry E. Wilson, Jr., Ohio State University College of Medicine, is included in a class of medical school faculty members taking a course in tropical medicine at the Army Medical School, Washington, D.C., sponsored by the Association of American Medical Colleges and the John and Mary R. Markle Foundation.

* * *

Dr. Carl A. Wilzbach, health commissioner of Cincinnati, has been reappointed official representative of the American Society for the Control of Cancer in the southern section of Ohio.

* * *

Dr. Arnold G. Wedum, assistant professor of bacteriology, University of Cincinnati College of Medicine, recently began a course in tropical medicine at Tulane University of Louisiana School of Medicine, New Orleans. He is one of a class of 29 persons who upon completion of their training will return to their own medical schools to teach.

* * *

When Dr. John A. Sipher, Norwalk, recently became secretary of the Huron County Medical Society, he found that the set of books used by the society was the same as he had started as secretary when the society was organized on September 5, 1905.

* * *

Dr. B. Bernard Caplan, formerly staff psychiatrist at the Toledo State Hospital, has been appointed chief psychiatrist at the State Bureau of Juvenile Research, Columbus.

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ruggedness and good humor of the average American, who uncomplainingly shoulders his country's burdens, jokes about the effect on himself of the rationing of foodstuffs and gasoline and rubber, and has his own unprintable opinion of *Hoarders* and *Grippers* ...— Funny, but an old metal tube has almost become a symbol of our national character. Every day hundreds of thousands of persons turn in old metal tubes, and in the aggregate these tubes represent a considerable quantity of metal—not only metal in the literal sense, but figuratively the mettle of a people who know that the winning of this war depends on every single one of us contributing his full share, even though it be just an old metal tube.

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Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D.,
CINCINNATI)

BUTLER

Dr. D. W. Heusinkveld, Cincinnati, member of the Ohio State Medical Association's Committee on Industrial Health, discussed the industrial health program of the state association at the regular meeting of the Butler County Medical Society Feb. 25 in the Mercy Hospital Nurses Home, Hamilton. Dr. H. A. Moore, County Health Commissioner, also appeared on the program to discuss "County Health Problems."—Mabel Gardner, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs in March:

March 2—Dr. Charles E. Kiely, Cincinnati, spoke on "The Toxicity of Dilantin," and Capt. Frank H. Mayfield, Cincinnati physician now at the Army's Percy Jones General Hospital, Battle Creek, Mich., discussed "Head Injuries."

March 16—"Special Considerations in the Feeding of Industrial Workers" was the topic discussed by Dr. Robert S. Goodhart, passed assistant surgeon (R), United States Public Health Service, Washington. Dr. Goodhart is technical advisor on nutrition in industry in the Nutrition Division, Office of Defense, Health, and Welfare Services, and vice chairman of the committee on nutrition in industry of the National Research Council.—Bulletin.

WARREN

Officers of the Warren County Medical Society for 1943 are: Dr. Roy C. A. Bock, Kings Mills, president; Dr. O. W. Hoffman, Franklin, vice-president; Dr. J. P. Hochwalt, Lebanon, secretary; Dr. A. E. Stout, Waynesville, treasurer; Dr. Jean Nock, Franklin, chairman, legislative committee; Dr. Edward Blair, Lebanon, chairman, War Participation Committee; Dr. N. A. Hamilton, Franklin, delegate; Dr. Hoffman, alternate; J. P. Hochwalt, M.D., secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MONTGOMERY

Four Dayton physicians addressed members of the Montgomery County Medical Society at its regular meeting March 5 at the Nurses' Home of St. Elizabeth Hospital, Dayton. Speakers and their topics were: Dr. N. C. Hochwalt, "Diagnosis and Treatment of Placenta Praevia and Abruptio Placenta;" Dr. J. A. Judy, "Principles and Treatment of the Commoner Types of Fractures;" Dr. R. C. Schneble, "The Mechanics and Treatment of Acute and Chronic Heart Failures;" and Dr. A. W. Carley, "Diagnosis and Parietal Abdominal Pain."—R. K. Finley, M.D., president.

MIAMI

Two Air Corps medical officers from Patterson Field addressed the Miami County Medical Society at its regular meeting March 5 at Piqua Memorial Hospital. Maj. W. H. Craddock talked about "Aero Otitis Media," and Lt. Lloyd Larick discussed "War Anesthesia."—G. A. Woodhouse, M.D., secretary.

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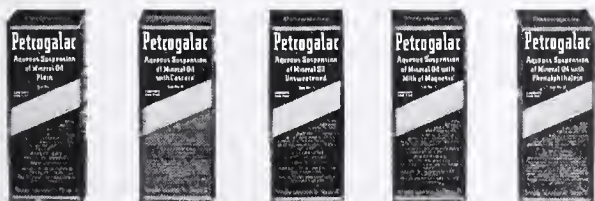
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Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during March:

March 5—General Meeting. "The Management of Patients with Jaundice," Dr. H. F. Howe.

March 12—Section of Pathology, Experimental Medicine and Bacteriology. Joint meeting with the Toledo Dental Society. "Deformities and Tumors of the Face," and "The Treatment of Face Wounds," Dr. Claire Straith, Detroit.

March 19.—Medical Section. "Medical and Surgical Complications of Pregnancy,"—a symposium. "The Value of the X-ray Examination in the Diagnosis of Placenta Previa," Dr. M. W. Diethelm. "Mitral Stenosis and Heart Disease in Pregnancy," Dr. Frank Clifford. "Diabetes," Dr. Frank Rejent; "Urologic Complications," Dr. L. P. Dolan; "Acute Appendicitis and Surgical Complications in Pregnancy," Dr. B. G. Shaffer.

March 26—Surgical Section. "Gynecological Surgery Under Local Anesthesia," Dr. J. E. Miller; "Diagnostic Dilatation and Curettage," Dr. A. L. Lennox.—Bulletin.

OTTAWA

Officers of the Ottawa County Medical Society for 1943 are: Dr. A. S. Mack, Oak Harbor, president; Dr. W. R. Gibson, Oak Harbor, vice-president; Dr. G. A. Boon, Oak Harbor, secretary-treasurer; Dr. A. D. Miessner, Port Clinton, chairman, legislative committee; members of War Participation Committee—Dr. L. L. Belt, Marblehead; Dr. C. J. Geisley, Port Clinton, and Dr. E. D. Schuiteman, Genoa; Dr. F. E. Miller, Curtice, delegate; Dr. Gibson, alternate.—Geo. A. Boon, M.D., secretary.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following programs were presented by the Academy of Medicine of Cleveland in March:

March 5—Clinical and Pathological Section at Lakeside Hospital. Speakers and their subjects were: Dr. R. F. Parker, Weil's Disease; Dr. F. R. Mautz, gastrojejuno colic fistula; Dr. H. A. Williams, arsenic and lead poisoning; Dr. J. W. Holloway, surgical case report; Dr. R. L. Faulkner, endometriosis with severe bowel bleeding; Dr. R. A. Shipley, chorionepithelioma of ovary with metastasis in a hypopituitary dwarf; and Dr. T. C. Laipply, celiac aneurysm.

March 10—Joint meeting of City Hospital Staff, Clinical Society of the University Hospitals, the Section on Experimental Medicine of the Academy, and the Society for Experimental

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GYNECOLOGY—Two Weeks Intensive Course starting June 28th; Clinical and Diagnostic Courses.

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Medicine and Biology in the auditorium of City Hospital. Dr. Herbert Z. Lund discussed "The Nature of False Positive Reactions in Syphilis." Dr. R. A. Shipley talked about "Results of Treatment of Addison's Disease with Pellets of Desoxycorticosterone Acetate." "Pathogenesis of Poliomyelitis" was the topic discussed by Dr. John A. Toomey.—Bulletin.

LAKE

Dr. Morris G. Carmody, Painesville, discussed "Differential Points in Abdominal Surgery" at the regular meeting of the Lake County Medical Society, March 9, at Painesville Memorial Hospital.—E. S. Jones, M.D., Secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

Dr. Robert W. Heinle, Cleveland, presented "Remarks on Iron Deficiency Anemias" at the regular meeting of the Portage County Medical Society held March 4 at Robinson Memorial Hospital, Ravenna.—Emily Widdecombe, M.D., secretary.

SUMMIT

"History and Incidence of Rabies" was the topic discussed at the meeting of the Summit County Medical Society, March 2, at Akron City Hospital by Dr. E. R. Shaffer, county health commissioner.

Dr. Jonathan Forman, Columbus, Editor of *The Ohio State Medical Journal* spoke on "Building an Effective Program for Public Education" at the dinner meeting of the Auxiliary to the Summit County Medical Society held March 3 at Akron City Club.—Bulletin.

STARK

Memorial resolutions have been adopted by the Stark County Medical Society in honor of the late Dr. Clarence E. Smith and the late Dr. James A. Carnes, Massillon.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

Speakers at the meeting of the Belmont County Medical Society held in Bellaire, March 11, were Dr. F. S. Wright, Bellaire, and Dr. R. H. Wilson, Martins Ferry. Dr. Wright discussed "Progress and Changes in Industrial Surgery," and Dr. Wilson gave a "Resume of Medical and Surgical Advancement."—C. W. Kirkland, M.D., secretary.

COSHOCOTON

Dr. Wynne Silbernagel, Columbus, was the speaker at the meeting of the Coshocton County

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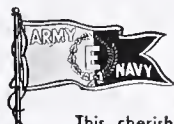
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Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. M. J. Thomas and Dr. M. C. McCuskey, both of Cambridge, addressed the Guernsey County Medical Society at its meetings in February. On Feb. 4 Dr. Thomas discussed glaucoma, and on Feb. 18 Dr. McCuskey talked on poliomyelitis.

At a meeting of the society, March 4, at Cambridge, an excellent motion picture on "Post-partum Hemorrhage," was shown through the courtesy of the Petrogalar Company. Dr. C. F. Shively spoke on "Infant Feeding," at a meeting of the society, March 18.—M. S. Lawrence, M.D., secretary.

MUSKINGUM

A new film, "Peptic Ulcer," was shown at a meeting of the Muskingum County Medical Society, March 3, at the University Club, Zanesville, through the courtesy of the John Wyeth Company, Philadelphia. Prepared under the direction of Dr. Everett D. Kiefer, Lahey Clinic, Boston, the film is a full color motion picture with sound.—Beatrice T. Hagen, M.D., secretary.

Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following meetings in March:

March 1—Dr. Herbert R. Edwards, New York, director of the Bureau of Tuberculosis of New York, discussed "Tuberculosis Control."

March 15—Dr. William B. Morrison, Columbus, recounted "Surgery's Contributions to Medicine Since Pearl Harbor."—Bulletin.

The Woman's Auxiliary to the Academy heard a talk on "Herbs in the Evolution of Culture" by Dr. Harry L. Reinhart, Columbus, when it met Feb. 15 at the home of Dr. and Mrs. J. F. Bate-man.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

The program for a meeting of the Ashland County Medical Society, March 12, at the Ashland Country Club, consisted of the following: A case report of a giant cell tumor of the femur, Dr. E. L. Clem; case report on Henoch's purpura, Dr. L. H. Martin; report on the re-

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gional meeting of the American College of Surgeons at Indianapolis, Dr. R. P. Bogniard and Dr. L. G. Sheets.—L. H. Martin, M.D., secretary.

LORAIN

Lt. Comdr. Leonard A. Stack, Lorain physician now in the Navy, discussed "The Medical Department of the Navy" at the regular meeting of the Lorain County Medical Society held March 9 at the Lorain Country Club.—L. H. Trufant, M.D., Secretary.

HURON

Dr. T. J. Fulton, assistant chief of the division of dental hygiene, State Department of Health, discussed dental health education at a joint meeting of the Huron County Medical Society and the local dentists' organization in Norwalk March 1.—J. A. Sipher, M.D., secretary.

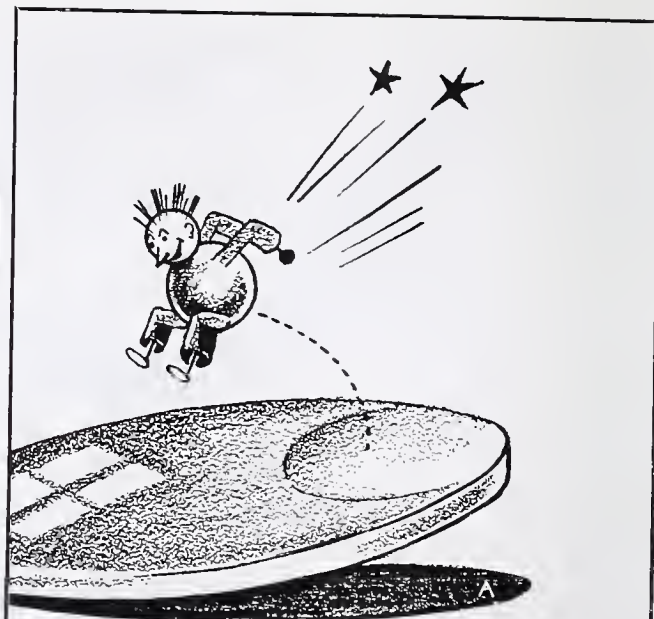
Ohio Doctors Invited to Michigan Industrial Medicine Conference

Members of the Ohio State Medical Association have been invited to attend the "Post-Graduate Industrial Medical and Surgical Conference" to be held April 8 at the Horace H. Rackham Educational Memorial, Detroit, under the sponsorship of the Committee on Industrial Health of the Michigan State Medical Society. The all-day program was planned by the committee in collaboration with the Department of Post-Graduate Medical Education of the University of Michigan.

Among the speakers at this meeting will be: Dr. J. G. Townsend, National Institute of Health, Bethesda, Md.; Dr. R. D. McClure, Henry Ford Hospital, Detroit; Dr. Max Burnell, General Motors Corp., Flint, Mich.; Dr. J. J. Bloomfield, National Institute of Health; Mr. Andrew T. Court, General Motors Corp., Detroit; Dr. Frank A. Tallman, Michigan State Hospital Commission, Lansing; Mr. E. P. Chester, Connecticut State Department of Education, Hartford; and Dr. Louis Schwartz, National Institute of Health.

A round-table discussion on "Management of the More Common Industrial Fractures," one of five planned for the afternoon session, will be led by Dr. Barney J. Hein, Toledo, chairman of the Committee on Industrial Health of the Ohio State Medical Association. Dr. C. D. Selby, Detroit, former president of the Ohio State Medical Association and medical director of the General Motors Corp., will preside at the afternoon general sessions.

Ada—Dr. D. R. Printz who recently received an honorable discharge from the U. S. Navy, has returned to private practice. He practiced here for 11 years prior to being commissioned a lieutenant in the Medical Corps of the Navy last Fall.



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The Physician's Bookshelf

New and Nonofficial Remedies, Edited by Austin E. Smith, M.D. (\$1.50, *American Medical Association, 535 North Dearborn Street, Chicago*) is essentially the same volume upon which we have all depended for many years, brought down to date.

The Making of A Surgeon by Ernest V. Smith, M.D., (\$3.00, *Berndt Printing Company, Fond du Lac, Wisconsin*), chronicles the life of typical American surgeon of 35 years' experience. It affords another insight into the lives of the great Mayo Brothers by showing how they influenced the life of this man. It is a typical American story, enlivened by a number of interesting case histories and a courageous discussion of many of our problems. I think you ought to read it.

American Jewish Physicians of Note by Solomon E. Kagan, M.D. (\$5.00, *Boston Medical Publishing Company, Boston, Massachusetts*), is a supplement to previous editions and contains many sketches not in previous editions. The book makes no pretense to completeness. Your reviewer can discern no criteria by which men have been included. Some known to us may have been selected because of their contribution to the community; others for their medical researches. It would seem that not too much discretion had been used in selection but rather that an attempt has been made to impress us with the importance of the American Jewish physician by use of sheer numbers.

Regain Your Figure. How to Recover the Figure after Childbirth without 'Strengthening' Exercises by Lt. Col. J. K. McConnel (\$2.00, *The Sherwood Press, Cleveland, Ohio*), is not another book with a "daily dozen". Rather it presents a series of exercises which seem to be based on sound, modern orthopedic teaching.

The Hospital Care of The Surgical Patient by George Crile, Jr., M.D., and Franklin L. Shively, Jr., M.D., (\$2.50, *Charles C. Thomas, Springfield, Illinois*) has been prepared primarily for the standardization of routine technical procedure. It combines in one small volume the clinical, physiological and technical principles as used in surgical practice in the hospital. This book will be very useful for the hospital library.

Infant and Child in The Culture of Today. The Guidance of Development by Arnold Gesell, M.D., and Frances L. Ilig, M.D., (\$4.00, *Harper & Bros., New York City*) is an outgrowth of many years of practical experience with normal, near-normal and problem children. This experience has been correlated with a systematic program of research under the auspices of the Clinic



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* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

of Child Development of the School of Medicine at Yale University, of which Dr. Gesell is the Director, upon the basis of clinical and developmental investigations. Detailed methods for individual guidance have been formulated. The material is presented in such a way as to make it of use in the guidance of young children whether they attend a nursery school or not. The book concerns itself primarily with the growth characteristics. It also emphasizes the influence of culture on personality and demonstrates the deep importance of a democratic culture for the psychological welfare of young children. The book is simply and clearly written, and presents an authoritative and realistic discussion of a child's development in the world of today.

Autonomic Regulations, Their Significance for Physiology, Psychology and Neuropsychiatry by Ernst Gellhorn, M.D., (\$5.50, *Interscience Publishers, Inc., New York, N. Y.*) is based upon a group of lectures given by the author in the School of Medicine of the University of Illinois during the past nine years and upon his active research in the field. It is a most valuable summary of a topic which has been ignored by most of us physicians all too much.

Flying Health by M. Martyn Kafka, M.D., (\$2.00, *Military Service Publishing Company, Harrisburg, Pa.*) describes the steps necessary to preserving the physical and mental health of the men who man our planes. We agree most wholeheartedly with the author's concept of this problem, when he urges that keeping fit is the pilot's first responsibility, and it involves far more than even regular medical supervision. It is with this in mind that the author presents a common sense guide to everything the pilot must know to keep himself in the pink of condition.

The Food You Eat, A Practical Guide to Home Nutrition by Samuel and Violette Glasstone (\$2.20, *University of Oklahoma Press*) is a practical guide for home use and for the education of consumers. It provides a readable account of the complex subject of nutrition, digestion and the preparation of foods. It is so planned and contains so much material in its 277 pages that the reviewer is adding it to that little circulating library of helpful books which he loans to his patients.

Manual of Oxygen Therapy Techniques, Including Carbon Dioxide, Helium and Water Vapor, by Albert H. Andrews, Jr., M.D. (\$1.75, *Yearbook Publishers, Inc., 304 South Dearborn Street, Chicago, Ill.*) is put forward to emphasize details so often overlooked in the use of oxygen therapy. This little manual is limited to a discussion of the technique only, so that in view of the free

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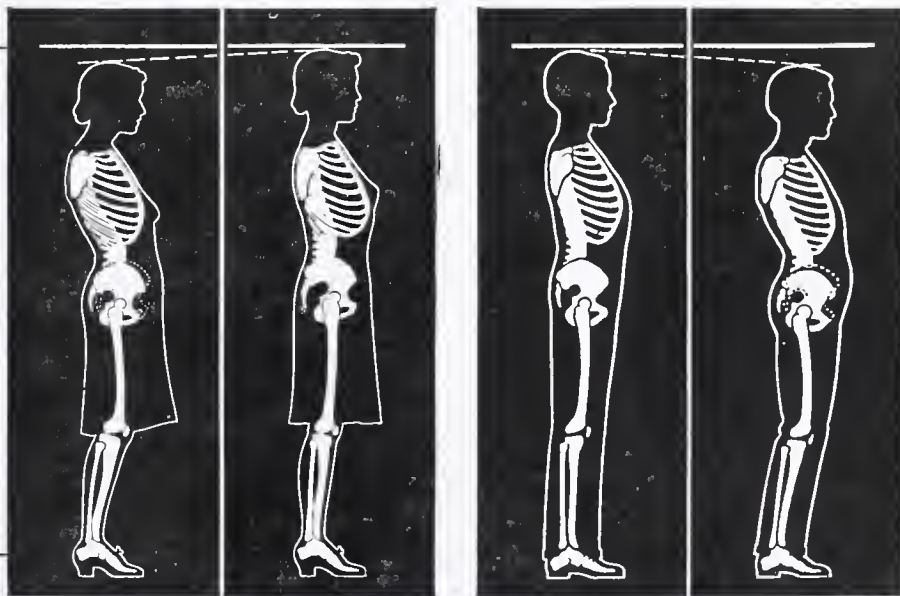
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The Yearbook of Industrial & Orthopedic Surgery, 1942, Edited by Charles F. Painter, M.D., (\$3.00, *The Year Book Publishers, Inc.*, 304 South Dearborn Street, Chicago) covers last year's literature in the same complete critical manner as previous volumes have done.

The Art of The Healer by Bernard Aschner, M.D. (\$2.75, *The Dial Press*, New York) has been translated from the German by Ruth and Heinz Norden. In this book the author sets forth in understandable language the means we have at our disposal for prolonging life within biological limitations. It is his thesis that there is a huge treasury of unused healing powers which might well enrich modern medicine. These he develops into a system which he calls constitutional therapy. For one who wants to get away from slavery to laboratory technique this book is extremely stimulating and thought provoking.

The Premature Infant, Part I, by Morris Gleich, M.D. (*Reprinted from Archives of Pediatrics*, New York City) is a reprint setting forth a review of some 214 articles and the author's own personal experience as Director of the Pediatric Department at Harlem Hospital and as a member of the Committee on Prematurity.

Synopsis of Traumatic Injuries of The Face and Jaws by Douglas B. Parker, M.D., (\$4.50, *C. V. Mosby Company*, St. Louis) presents to the medical and dental profession a concise text that deals with the first aid treatment of face and jaw injuries at the site of injury. In addition to its importance in first aid work it is of major importance in the military field.

You Must Relax by Edmund Jacobson, M.D., (\$1.75, *New Revised Edition*, Whittlesey House, New York) is a practical method of reducing the strains of modern life. This book received great acclaim in its previous editions. The present edition has been written in view of the stress and strain that has been added to our lot by the war.

The Lives and Loves of Huber The Tuber by Harry A. Wilmer, M.D., (*National Tuberculosis Association*, 1790 Broadway, New York City) tells the whole story of tuberculosis in terms that are easily understood. The author, himself a victim of tuberculosis, drew the pictures and wrote the text while on bed rest. The book is so set up as to be intensely interesting and very definitely aids the reader in visualizing what actually occurs when the germs of tuberculosis enter the body. It is therefore a book that deserves wide success.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

May, 1943

No. 5

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor*

ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Clinical Use of Stilbestrol

Z. J. R. HOLLENBECK, M.D., and PHILIP J. REEL, M.D.

THIS review is based on current reports and clinical experience with stilbestrol in 290 cases over a period of two and one-half years.* Of these, 225 were cases of menopause, of which 157 were natural and 68 were induced by surgery or irradiation. The remaining 65 cases constitute a miscellaneous group of primary and secondary hypogonadism.

The natural occurring ovarian hormones which have been identified, in body fluids and tissues, are chemically steroids, or higher alcohols, which contain in common the cholane nucleus. Stilbestrol, in contradistinction, is derived from diethylstilbene, a coal-tar product, and is no way chemically related to the sex steroids. Diethylstilbestrol and its esters possess marked estrogenic properties. In fact they exhibit a much more potent estrogenic activity when given by mouth than do the natural hormones. Here it has a definite advantage over the latter; another is its relatively low cost of production. Since stilbestrol does possess this potency when given orally, we see but very limited application of its use parenterally and this is especially true of intramuscular injections of stilbestrol in oil. In certain instances, however, it may be desirable to supplement oral medication by injections or in the form of suppositories and ointments.

Stilbestrol has no definite cumulative action but when physiologic response is obtained its effect will last from one to three weeks after discontinuance of medication. The apparent disadvantage to the use of this drug is the oc-

The Authors

• Dr. Hollenbeck, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1935; fellow American College of Surgeons; diplomate American Board of Obstetrics and Gynecology; instructor in Gynecology, Ohio State University College of Medicine.

• Dr. Reel, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1915; fellow American College of Surgeons; member Central Association of Obstetricians and Gynecologists; professor of Gynecology, Ohio State University College of Medicine.

currence of nausea and vomiting and certain other undesirable side-effects such as headache and vertigo severe enough to demand discontinuance of treatment in about 7 per cent of cases. Some patients do exhibit an initial nausea or nausea and vomiting which will disappear if therapy is continued or if the dose is reduced for a short period of time and then gradually restored to the desired level. It is interesting to note if doses of natural hormones comparable in estrogenic activity to the prevailing recommended doses of stilbestrol are used, that nausea and vomiting occurs in about the same proportion of cases.^{1,2} We have seen two patients who could not tolerate as little as 5000 I. U. of estrone twice weekly because of severe nausea and vomiting. At any rate, we have not seen any undesirable effects from stilbestrol which did not disappear at once with discontinuance of the drug.

The stilbestrol used in this study was furnished through the kindness of The Department of Medical Research, The Winthrop Chemical Company, Inc.

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

The discussion of the indications and the clinical use of stilbestrol is necessarily, then, a review of the practical and well established indications for the use of estrogens in general.

MENOPAUSE

Estrogenic therapy in the management of the severe subjective symptoms of the menopause should be used in an effort to lessen, and not to substitute for the ovarian deficit in these women. Treatment should be limited, if possible, in duration to several months. Stilbestrol lends itself well to use in this condition and good results can be expected in the vast majority of patients. The recommended dose varies from 0.25 mgm. to 1 mgm. daily by mouth and this must be adjusted to suit the needs of the individual patient. Occasionally it may be necessary to supplement an oral dose which is relatively high with parenteral injections of 1 mgm. once or twice weekly. This is particularly true in patients with surgical or irradiation menopause. Women who continue to menstruate or who begin to have episodes of bleeding after stilbestrol therapy is begun, should have the medication adjusted cyclically so that it is withdrawn at the time of bleeding. It is usually possible in patients who have post-menopausal bleeding due to stilbestrol, to establish a level at which there is no bleeding and yet the usual distressing symptoms of the menopause are controlled.

Menopause arthralgia responds favorably to stilbestrol therapy in about 75 to 80 per cent of cases treated, if the dose is adequate to control other symptoms of the menopause, according to our experience and that of other workers reporting on this particular phase.^{3,4,5}

VAGINITIS

In the treatment of senile vaginitis, exceedingly good results are obtained with stilbestrol. The drug may be used in the form of vaginal suppositories which contain up to 0.5 mgm., and are inserted once or twice daily, depending upon the severity of the symptoms. If the local effect is desired in addition to general systemic action, excellent results are also obtained by oral medication because stilbestrol quickly produces a follicular response in the vaginal epithelium.⁴ A more rapid clinical effect will be obtained if a mildly acid douche is used in conjunction with estrogenic therapy in these cases. Generally, poor results are obtained with stilbestrol, as with the natural estrogens, in the treatment of pruritis vulvae associated with the menopause, if atrophic changes have already begun to appear in the vulvar and perineal skin.

One occasionally sees the menopausal patient who comes complaining of dysparunia and who presents, on vaginal examinations, a very definite cause for this, aside from any non-specific vagin-

itis, in the form of a constriction of the upper one-third of vagina. This apparent loss of normal elasticity of the vaginal wall can be readily transformed to its original state by the use of stilbestrol orally.

This drug is also applicable to the treatment of gonorrheal vaginitis of childhood.⁶ It has the advantage over the natural hormones that it can be easily given by mouth and thus eliminate the use of suppositories. Doses of 1 mgm. to 3 mgm. daily (by mouth) for 10 to 21 days are recommended. There is no reason why this should not be combined in treatment with the drugs of the sulfonamide group.

HYPOGONADAL STATES

For the estrogenic effect desired in the treatment of patients with hypogonitalism, stilbestrol may be used to advantage. However, relatively larger doses must be used for a much longer period than in cases with other indications. Here the amount may vary from 1 mgm. to 2 mgm. or even 3 mgm. daily depending upon the degree of infantilism and the tolerance of the patient to the drug. There is, of course, the more or less generally accepted view, to which we subscribed, that estrogen treatment, especially in these cases, should not be continuous because of the direct depressing effect upon the pituitary gland and indirectly upon the ovary. Some attempt should be made to simulate a normal ovarian cycle with periods of from 17 to 25 days of therapy with relative periods of rest. It is also suggested that during the last few days of the active treatment phase the dosage be decreased. This method may allow a cyclic increase in the secretion of the follicle stimulating hormone after a period of temporary suppression and therapy, indirectly, actually stimulate an otherwise apparently refractory ovary to the production of a more normal hormone level. Here too, then, there may be an indication for the estrogen therapy of endocrine sterility. This is entirely aside from the apparent direct effect of these substances upon the motility of the fallopian tubes.⁷

If amenorrhea is a symptom, periodic bleeding may occur during the course of treatment, or withdrawal bleeding may easily be obtained, in most cases, after sufficient priming with stilbestrol. We have seen gratifying response in four cases who we feel have had somewhere near adequate treatment. Three of these patients have had therapy for over two years, as outlined above, and one for one and one-half years. In all, there was a development of adult type external genitalia and a reversal of the cervico-uterine ratio of infantilism. Three patients menstruated irregularly while being treated with stilbestrol but one of these bled only as a withdrawal phenomenon. The fourth patient did not menstruate but

did note a very definite increase in femininity as evidenced by the development of her breasts and distribution of body fat. Therapy has been discontinued in two of these cases and there has been no retrogression of the uterine development.

Hypomastia may be favorably influenced by the development of more normal breasts. There is a tendency to retrogression if therapy is stopped. This may possibly be prevented if the corpus luteum hormone is used in conjunction with stilbestrol therapy. There is no doubt that with stilbestrol as with the natural hormones, the better results are seen in patients with an underdevelopment of all the sex organs than in those in which the hypoplasia is limited to one particular organ.⁸

Abnormal uterine bleeding occurring from an estrogenic type of endometrium and as a result of a hypo-ovarian function may be controlled by cyclic stilbestrol therapy as previously outlined. If this functional irregularity occurs at or near the menopause, larger doses must be used than in that seen in young women.

As a method of management of essential dysmenorrhea, stilbestrol is no more rational nor practical than the natural hormones unless there is a definite hypoplasia of the uterus.

SUPPRESSION OF LACTATION

A suppression of lactation may be accomplished with stilbestrol as with the natural estrogens. If lactation is not desirable, therapy should be started immediately post-partum. Engorgement can usually be prevented or at least moderated in this way. But, it does not follow that lactation will not occur, as it does in about one-half the cases a few days after treatment is stopped. If engorgement has ensued, it may be markedly relieved and lactation inhibited by beginning at once with stilbestrol therapy. It is not possible, however, to inhibit the function of a lactating breast which has had the stimulation of nursing and it is in this instance that estrogen therapy fails. From the foregoing statements it seems that the suppression of lactation with stilbestrol has actually evolved into a prevention of breast engorgement. If therapy is to be of short duration, dosage must be higher. Five mgm. three times daily, beginning immediately post-partum, for two or three days will have the desired effect upon engorgement. If from 3 mgm. to 10 mgm. daily are used, therapy should be continued from four to seven days⁹⁻¹⁰. The large doses necessary to accomplish this suppression are well tolerated in the post-partum state. The reason for this is not clear.

The occasional complaint of secretion from the breasts, or more rarely, those of mild engorgement following castration are also easily con-

trolled with average size oral doses of stilbestrol (1 mgm. to 2 mgm. daily).

CONCLUSIONS

The physiologic effects of stilbestrol and the indications for its use are similar to those of the natural occurring estrogenic substances.

Nearly 7 per cent of patients, in this series, were unable to tolerate the drug because of undesirable side-effects. Some patients seem to develop a tolerance to these. Nausea and vomiting as a result of stilbestrol therapy in the post-partum state is uncommon.

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Pneumothorax in Tuberculosis Treatment

The adolescent girl with minimal tuberculosis requires especially close observation, and if there is any question as to lack of satisfactory progress, pneumothorax should be done.

Others have listed as advantages of pneumothorax in these cases, the shorter period of hospitalization and disability, the shorter conversion time in case the sputum is positive and the fact that, in their opinion, the end results are better. It should also be emphasized that the doctor sees his pneumothorax cases oftener and any change will be detected sooner. He is likewise in a better position to regulate their social and vocational activities.

The chief arguments against pneumothorax are: the inconvenience to the patient, the necessity for the long and expensive period of treatment and, most important, the danger of complications. While the later are rare in minimal cases, pleural effusions, empyema, spontaneous pneumothorax, bronchopleural fistula and non-expansile lung do occur.—Edwin G. Kirby, M.D., *Tuberculosis Supplement to California and Western Medicine*, July, 1942.

Horse Serum Neuritis

LOUIS J. KARNOSH, M.D. and EDWARD M. ZUCKER, M.D.

THE manifestations of allergy are multifarious and probably no tissue in the human body is entirely free of some reactive phenomena. This applies particularly to serum sickness. Neurologic complications in this condition are not frequently encountered in clinical practice, and, hence, when they do occur, may be misunderstood as to etiology, are given unfavorable prognoses and indifferent treatment.

Probably the first clear description of muscular paralysis as a symptom of serum sickness was recorded in 1911 by Vincent and Richet¹ who treated a 30 year old man for paralysis of the right deltoid and serratus anterior muscles which developed nine days after an antitetanic serum injection into the wall of the abdomen. In recent years, it has been possible to select 47 apparently authentic examples of neurologic sequelae of serum sickness from the literature. Such an investigation was made by Doyle² who was able to draw some valuable conclusions about the general nature of neural manifestations of allergy. The cases reported were scattered as to time and place and gave no evidence that the peculiar reactions to the horse serum could be assigned to a product from a common manufacture source or to some local coincidental epidemic such as poliomyelitis. Doyle's analysis further revealed that tetanus antitoxin was the worst offender, (70 per cent) while diphtheria was a poor second. Males were much more frequently involved than women for the simple reason that the former are found more often in a situation requiring tetanus prophylaxis.

The same reasoning probably applies when it is noted that children are rarely afflicted. Kocjis³ in reviewing the reactions in children, reports only one neurological complication in 16,000 cases who had received serum. As further evidence that this neuritis is sporadic and unpredictable in its appearance, is the observation that in World War I, when antitetanic serum was given in hundreds of thousands of doses, there was no parallel increase in the number of cases of horse serum nerve disease.

The latent period between the onset of serum sickness and the appearance of muscular paralysis varies greatly and cannot always be accurately recorded because the muscular weakness may be concealed in the early phases by the severe joint and neuritic pain which keeps the parts immobilized. Where the data were accu-

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ately recorded, this interval varied from two days to six weeks.

By far the most vulnerable nerve tissue in these serum reactions is the brachial plexus, although other nerve trunks and even the optic nerve may become implicated. Kennedy⁴ who has been particularly interested in urticarial reactions of the nervous system, and who is responsible for emphasizing this subject in American literature, described cerebral complications following serum injection; these included headache, aphasia, hemiplegia, papilledema, hemianopia, and even convulsions.

In the 47 cases reviewed by Doyle, in all but four, the neurologic complications were restricted to the brachial plexus, most of which were unilateral in distribution and chiefly motor in character.

The typical clinical picture of horse serum neuritis appears to be a paralytic lesion chiefly of the circumflex nerve, the nerves of the supra- and infra-scapular muscles, levator scapulae, the rhomboids, and serratus anterior muscles. All these muscles are supplied by branches of the dorsal cord of the brachial plexus, which arises chiefly from the 5th and 6th cervical roots. The reason for this peculiar selectivity is unknown.

This predilection to a lesion in the brachial plexus occurs irrespective of the site or method of injection. A perusal of the literature shows that only in one instance was the horse serum injected in the immediate neighborhood of the affected nerve and muscle. Intravenous administration of the serum did not produce a higher incidence of these neural complications than did other parenteral modes of introduction.

The actual paralysis of these muscles is usually preceded by a distressing pain and swelling about the shoulder joint, which may endure for several days and which is often recognized as an acute

arthritis and treated as such. The atrophy of the deltoid and circumscapular muscles is rapid and within a few days after the pain subsides, the patient finds himself unable to abduct the arm, and the shoulder blade takes on a typical winged appearance. Over the sensory distribution of the circumflex nerve, one finds the concomitant area of anesthesia, and usually this constitutes the only sensory defect.

The muscular atrophy progresses slowly and after several months, the wasting is so profound that the bony prominences are clearly displayed under the skin. The normal deltoid contour is flattened, and the scapular fossae are greatly deepened.

The shoulder is carried at a slightly lower level than its mate and the entire extremity is usually held in slight overadduction. The patient often complains that while walking, the hand and forearm brush continually against the hip. In contrast with these infirmities of the shoulder joint, the muscles of the forearm and hand suffer no impairment in strength or voluntary control.

An early diagnosis and appropriate treatment, according to Bennett,⁵ prevents severe atrophy. The common error in diagnosis is to assign the etiology to poliomyelitis or to regard the disturbance as an acute arthritis or peri-arthritis. The condition is, therefore, quite frequently treated with the fever cabinet or immobilization. After several months, when the atrophy appears to be progressive, patients are often urged to consider plastic nerve operations. Usually there is a very gradual improvement after the fifth or sixth month, particularly under treatment with active and passive exercises, massages and deep heat. Almost complete regeneration generally occurs within a year.

As to the pathology of this legion, Kennedy speculates that there is an urticarial edema of the perineural tissues, and the site of paralysis coincides with the site of greatest edema. He concludes that the relatively rapid recovery implies a myelin sheath degeneration rather than destruction of the axis cylinder.

However grave may be these neuritides, the low incidence certainly does not invalidate the inestimable benefit of serum therapy in general. Kennedy recommends intravenous injections of sodium bicarbonate before giving the serum. Bennett suggests that the use of tetanus toxoid rather than the antitoxin would reduce the incidence of these complications. During the acute stage, he advises vigorous dehydrating measures.

Direct experience with this entity includes the study of two cases, both of which suffered a shoulder palsy following the use of tetanus antitoxin.

CASE REPORTS

Case I. F.N., male, age 27, lacerated his right palm in a minor auto accident. He was given an intramuscular injection of anti-tetanus serum. Five days later, he developed a tingling sensation over the right shoulder, cramps over the entire body and a deep boring pain under the right deltoid muscle. For two days the temperature ranged from 103 deg. to 105 deg. F.

He attempted to work on the third day which consisted of lifting heavy cases of canned goods with his right shoulder. Within a week, he discovered that he could no longer lift or carry the smallest packing case.

Examination one month later revealed a paralysis of several muscles about the right shoulder girdle, particularly of the rhomboids, the serratus anterior and to a lesser extent, of the deltoid. On abducting the arm, a most difficult performance, the scapula hinged backward and upward in a grotesque fashion. There was a definite blunting of all sensations over the area supplied by the axillary nerve.

While the patient naturally attributed the paralysis to the lifting of heavy cases, it was apparent that the nerve lesion was not of a purely traumatic nature. However, it can be assumed that the incidental trauma imposed upon the shoulder was an aggravating factor.

Recovery was slow but consistent. After 18 months, there was little or no residual atrophy or voluntary weakness.

Case II. G.V., male, age 34, was referred by his family physician for an opinion as to the advisability of a nerve transplant for a progressive paralysis of the right deltoid muscle.

In May, 1942, while working in his garden, he cut his left forefinger with a small scythe. The following day, he was given tetanus antitoxin by the intramuscular route. On July 23, 1942, he became feverish, nervous and suffered with "terrific pain" over both shoulders and along the outer aspect of the right arm. The condition was regarded as an acute peri-arthritis. After treatment with analgesics and local heat, the pain subsided.

Four days later he found difficulty in combing his hair with the right hand. This weakness progressed within a few weeks to the extent that he could no longer raise or abduct the right arm. The shoulder joint became angular in appearance, and the deltoid muscle was scarcely palpable.

On examination (December 22, 1942), there was an almost complete paralysis of the circumflex nerve, of the long thoracic, and of the nerves to the supra- and infra-scapular muscles. The circumflex sensory area was practically anesthetic. All other neurologic components on the examination were normal.

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Four Cases of Paratyphoid Fever With Unusual Complications

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PARATYPHOID fever is not ordinarily considered either a severe or fulminating disease. Many of the recent reports, notably from the British Isles and the continent, deal with paratyphoid epidemics, in which more or less protracted fever and diarrhea were the chief morbid symptoms. A few others are case reviews of complications, most of which were bowel perforation and hemorrhage. Some, however, report more unusual complications such as toxic myocarditis,¹ meningitis, pericarditis, subdural abscess, parotitis, pneumonia, empyema,² lumbosacral abscess,³ pyarthrosis, osteomyelitis, and endocarditis.⁴ One recent report⁵ concerns two cases of paratyphoid fever simulating surgical abdomen. On one of these cases an exploratory laparotomy was performed.

In this hospital the experience with paratyphoid for the past ten years has been such as to lead one to regard it as a relatively benign, if somewhat drawn-out, infection. Until this year, out of 43 cases recorded, only one death occurred, and that was in an elderly man who had been on the ward in a debilitated state for some time, and whose exodus was attributed to terminal pneumonia. One patient was operated on for acute appendicitis, the ileitis of enteric fever being recognized when the bowel was examined. None of the 43 cases seen in the past nine years presented complications, although a few unusual manifestations were described. These were: meningismus (one case), jaundice (two cases), clouding of consciousness (three cases), hemoptysis (one case).

In contrast with this previous experience, however, is that of this summer. Of the six patients with paratyphoid fever admitted to the hospital wards, four were profoundly ill. The first patient developed paratyphoid empyema requiring surgical drainage, and he is still convalescing five months later; while the other three died within a week after admission—one with paratyphoid orbital cellulitis and cavernous sinus thrombosis syndrome, one with acute hydrops of the gall bladder, uremia, and pneumonia, and one with uremia. Because these four cases are unique in our records they are being reported. It should be pointed out that there has been no epidemic in this city that might account for increased virulence of the organisms.

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REPORT OF CASES

Case I—R.R.—No. 61082—29-year-old colored male, admitted June 23, 1942. He was first seen on the genito-urinary service with a two-day history of dull left upper quadrant pain, radiating to the flank and groin, with knifelike exacerbations. For one day he had had chill, vomiting, constipation, anorexia, and cough with yellow sputum. The pain was exaggerated by deep breathing and cough. He had visited on a farm in the recent past.

Examination: Temperature 105°; Pulse 116; Respiration 26; Blood Pressure 130/80.

The pertinent findings were diffuse bronchial wheezes and distended abdomen with a vague, tender, left upper quadrant mass, and local muscle spasm. Peristalsis was present. No costo-vertebral angle tenderness was noted. He was observed for a possible perinephric abscess and was given sulfadiazine, gm. 11 in two and a half days. At this time the blood culture was reported positive for paratyphoid fever, and the patient was transferred to the medical service. By then there was no doubt that the left upper quadrant mass was spleen. Sulfathiazole, gm. 8 were given in the next 36 hours, during which time the patient had a violent chill, was confused and delirious, and the drug was stopped. Three days later, on the sixth hospital day, sulfathiazole and succinyl-sulfathiazole were started, and on this and the following day 7 grams of the former and 12 grams of the latter were given. The patient remained stuporous and confused with very high temperature. On the 11th hospital day the WBC was 3,500, as compared with 17,800 on admission. On the 14th hospital day, when the WBC had risen to 31,200, sulfathiazole, 1 gram, and succinyl-sulfathiazole, 3½ grams, were again started, with chill occurring about three hours after each dose. A total of 5 grams of the former and 14 grams of the latter were given this time over 36 hours, when severe pain developed in the left side. The patient remained stuporous, confused, and delirious. The drugs were stopped when the RBC was 1.5 million, as compared with 5.0 million on admission. On the 21st hospital day the WBC reached its lowest ebb, with 1,100 WBC and no polymorphonuclears.

Immediately on recognition of the hemolytic crisis transfusions and pentnucleotide were begun, and ten days later, i.e., the 26th hospital day, the peripheral blood began to show evidence of regeneration of red and white cells. Marrow studies done simultaneously were confirmatory.

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Submitted December 30, 1942.

In addition to the icterus which the patient developed, he also manifested ankle edema and peripheral neuritis, the latter thought due to sulfathiazole intoxication. A systolic murmur appeared, and it is possible that toxic myocarditis supervened, although an electrocardiogram was not obtained. The murmur may have been of hemic origin.

By the 32nd hospital day the patient was clinically improved, although he still had daily fever to 103°, and his WBC had climbed to 16,500. On the 37th day rales were heard at the left lung base, with bronchial wheezes. The spleen was very large. Peripheral neuritis persisted, but the edema had subsided. Duodenal drainage was negative on culture.

By the 42nd hospital day fluid was recognized in the left pleural cavity and paratyphoid organisms were cultured after thoracentesis. Accordingly, on the 51st day a closed thoracotomy was done, after the patient was transferred to the surgical service. Since that time his well being has been much improved, and his temperature, though elevated daily, is seldom over 101°. The WBC is still 11,500. Agglutinations are reduced to low titer, and the pleural fluid has become sterile. During none of his course has the patient ever had diarrhea. The peripheral neuritis has persisted. At the time of this report, five months after onset, thoracoplasty has just been performed because of the continuance of empyema drainage.

Laboratory: RBC—5,000,000; WBC—17,800; PMN—56 per cent on admission.

During the hemolytic crisis, RBC was 2,000,000; Hb, 5.8 gm.; WBC, 1,100; no PMN's. The urine at no time showed more than a trace of albumen, an occasional WBC, and granular cast. Lumbar puncture was negative. The blood culture was positive for paratyphoid on admission, negative during the time of sulfonamide administration, and positive again immediately after cessation of the drug, on each of four occasions. Empyema fluid culture was positive for paratyphoid but after surgical drainage became negative. Stool, urine, and bile cultures were at no time positive. Agglutination reached 1:320 for the H antigen.

SUMMARY

This is a case of fulminating paratyphoid infection, in which empyema developed on the 42nd hospital day, or the 44th day of the disease. On admission, acute splenitis and bronchitis were the chief presenting signs, the former at first diagnosed as perinephric abscess. The earlier course was complicated by hemolytic crisis and peripheral neuritis due to sulfathiazole.

Case II—C.H.—No. 175177—45-year-old black male, admitted August 2, 1942. Eight days before admission, the patient developed epigastric pain, nausea, vomiting and diarrhea without blood. Three days before admission vomiting stopped but diarrhea continued. One day before admission the right eye and the bridge of the nose became swollen without known traumatic cause.

Examination: Temperature 102.6°; Pulse 122; Respiration 34; Blood Pressure 150/90.

The patient was semi-stuporous. His right eye was swollen and closed, and the swelling extended across the bridge of the nose. The pupils reacted, and the fundi were negative. The abdomen was

distended, tympanitic, and silent, with no masses or organs felt. Both nostrils and the posterior pharynx were filled with dry blood, and the patient was hoarse.

Course: No evidence of traumatic responsibility for the ocular and nasal findings was discovered. The patient became more stuporous and concomitantly the eye became more swollen, the pupil dilated, and the skin over both the eye and nose became necrotic over an area corresponding to the distribution of the right ophthalmic artery. Cavernous sinus thrombosis syndrome was diagnosed. Stool culture was positive for paratyphoid, as was nasal swab culture. Post mortem aspirate of the right orbit was also positive for paratyphoid organisms. Spinal fluid showed 2,000 white cells and protein 300 mg. per cent. The patient died on the second hospital day, no autopsy being obtained.

SUMMARY

This is a case of paratyphoid enteritis in which the patient presumably contaminated his nose and eye, and developed an orbital cellulitis with meningeal extension, with obstruction of the ophthalmic artery, probably at the optic foramen.

Case III—E. M.—No. 175300—52-year-old colored male, admitted August 10, 1942. This patient was a brother-in-law of Case II and resided in the same house. The history is of watery diarrhea and vomiting for eight days. Hoarseness and hiccup developed soon after. Confusion, delirium and semi-stupor were noted for three days. He had been picking at his bed clothes for one day.

Examination: Temperature 100.2°; Pulse 120; Respiration 22; Blood Pressure 120/82.

The pupils did not react; the tongue was red and smooth at the edges. A few rales were heard in the left lower axilla. A soft systolic murmur was noted at the cardiac apex. Peripheral vascular sclerosis was present. The abdomen was negative. The prostate was moderately enlarged. Muscle twitchings were observed, suggesting uremia.

Course: Blood urea nitrogen on admission was 134 mg. per 100 cc. and carbon dioxide combining power was 25 vol. per cent. Despite vigorous hydration the BUN continued to rise, although the urine showed only a few cells, and granular casts, with no albumen, and a specific gravity of 1.018. Stool culture was positive for paratyphoid. Blood culture was negative. The patient died on the fifth hospital day with terminal rise in temperature. No autopsy was obtained.

SUMMARY

This was a case of paratyphoid enteritis, in which dehydration and acidosis were extremely severe. The patient died in uremia despite vigorous efforts to combat the electrolyte imbalance, and despite the absence of positive urinary findings to point to intrinsic renal disease. No chemotherapy was attempted.

Case IV—D.G.—No. 52221—40-year-old colored male, admitted July 11, 1942. The records show that this patient had a chest X-ray ordered by the Receiving Ward four days before admission, as a tuberculosis suspect. Only increased markings were observed, and he was sent home to return to clinic. Instead, he was brought by the

police on the above date in a moribund state. No history was obtained.

Examination: Temperature 99.6°; Pulse 122; Respiration 38; Blood Pressure 80/60.

The patient was a semi-comatose, cachectic individual. His pupils reacted. The breath was fetid. Respirations were rapid and shallow, with small rales at both bases, and dullness at the left. The heart sounds were distant and regular. The liver edge was four fingers below the costal margin. The spleen was not felt.

Course: A diagnosis of bronchopneumonia was made on admission, and sulfathiazole was given, 5 gm. intravenously, followed by 1 gm. by mouth for six doses. On the day after admission the gallbladder became extremely tender, enlarging to the size of one's fist; and the abdomen became distended and silent. Within a few hours thereafter the patient died.

Laboratory: RBC—5,530,000; WBC—14,950; Albumen ++; Specific gravity—1.020.

Blood and urine otherwise negative. The stool was liquid brown, the chemical test for blood, negative.

BUN on admission was 211 mg. per 100 cc.; CO₂ was 25 vol. per cent. On X-ray there was thought to be some "peribronchial infiltrate" at the left base. Blood culture reported post mortem was positive for paratyphoid.

Autopsy: There was found a confluent lobular pneumonia of both lower lobes and of a portion of the right upper lobe. Acute passive congestion and edema of the lungs, of the abdominal viscera, and of the brain were described. The spleen weighed 200 gm., and, aside from congestion, was not remarkable. There was acute cholecystitis, with adhesions around the cystic duct. The gall bladder was 15 cm. long, its wall was thick, and it was filled with a brown liquid. The bile passages however, were patent. On microscopic examination, no organisms were identified on the stained sections. Peculiarly, the cellular response in the lung was predominantly monocytic. The explanation for this was not apparent. No cultures were taken at autopsy.

SUMMARY

This is a case of paratyphoid fever, without enteritis, which was first thought to be tuberculosis. Bronchopneumonia, acute hydrops of the gall bladder, and uremia were the causes of death. Organisms were grown only from the blood stream.

COMMENT

The paratyphoid organisms in these cases were cultured in the hospital laboratory, and were reported as Paratyphoid "B". However, it is the practice here to make the final species identification by agglutination with antisera for the "H" or flagellar antigen only. Since it is now known⁴ that there are five different paratyphoid organisms which, when in the group phase, possess common flagellar antigens, "H" agglutination alone obviously does not serve for precise identification. These five paratyphoid bacilli are: *Salmonella schottmulleri*, and *S. typhi murium*, together grouped as Paratyphoid "B", and *S. suipestifer*, of which there are three types, all grouped as Paratyphoid "C". It is apparent,

therefore, that any one of these five organisms might have been the etiologic agent in each of our cases. As a consequence of this lack of specific identification, epidemiologic inquiry into a possible common source for the four cases presented in this report would be fruitless.

It is of passing interest to observe that diarrhea has occurred in less than half of the 48 cases seen in this hospital in the past ten years. By tabulation, it can be seen that the symptoms and

SYMPTOMS OF PARATYPHOID FEVER, CINCINNATI GENERAL HOSPITAL, 1932-1942 (TOTAL CASES=48)

	No. Cases
Nausea and/or vomiting.....	26
Headache.....	24
Fever and/or night sweats.....	23
Diarrhea.....	20
Weakness and fatigue.....	14
Chill.....	14
Sore throat, cough.....	13
Aching extremities.....	12
Anorexia.....	11
Malaise.....	10
Abdominal pain (not localized).....	9
Constipation.....	8
Back pain.....	7
Dizziness.....	5
Pain chest.....	4
Pain RUQ.....	5
Pain RLQ.....	3
Clouding of consciousness.....	3
Jaundice.....	2
Hoarseness.....	2
Pain LUQ.....	1
Convulsions.....	1
Nose bleed.....	1
Hemoptysis.....	1
Meningismus.....	1
Hiccough.....	1

signs of paratyphoid fever may affect any or all of the body systems, the respiratory tract being involved with greatest frequency, after that of the enteric tract.

SUMMARY

1. Four cases of paratyphoid fever are reported because of their unusual complications respectively, of (1) empyema; (2) cavernous sinus thrombosis syndrome; (3) uremia; and (4) hydrops of the gall bladder plus bronchopneumonia, and uremia. The first of these was further complicated by hemolytic crisis due to sulfathiazole, which responded to pentnucleotide and transfusions, and by peripheral neuritis attributed also to the sulfathiazole.

2. Analysis of the symptomatology of 48 cases of endemic paratyphoid fever in the experience of this hospital in the past ten years reveals that less than half the cases had diarrhea at any time during the disease.

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Schizophrenic Reaction-Types Simulating Thyroid Disease

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THIS research is a personal challenge to interpret certain schizophrenic manifestations which have simulated thyroid disease. The study is the result of data accumulated over a period of 14 years. Some old pencil notes of 1928, then asked the question, "Why was the thyroid gland removed in this person?" Throughout my very limited experience in this field, the same question has frequently been asked, "Why was the thyroid gland removed in this patient?" The question became more and more puzzling after counseling with postoperative patients who retained the same physical symptoms as were present before the operation, but in addition had presented some rather deep seated emotional complexes which either terrorized the patient or caused by indifference, a withdrawal from reality.

CLASSIFICATION

It was just ten years ago this spring that Kasanin¹ presented his classification of the Schizo-affective psychoses. Working on the same subject at the same time, but presenting the first formal paper a year later, I attempted to show the differential diagnostic features of schizophrenia and schizophrenic-reaction types.

In that first paper² on the subject, while discussing the rapid pulse, found in the schizophrenic reaction type, I quote, "This characteristic is often taken as a symptom of thyroid disease and a part of the thyroid is removed. After the thyroidectomy, the pulse remains rapid and the patients drift into the hands of psychiatrists in from six months to three years."

At that time, hyperthyroidism was considered as one of many physical diseases which precipitated an organic schizophrenic reaction. However, further observations would now tend to question any direct relationship between thyroid disease and the psychoses. We commonly see the schizophrenic reaction type with the rapid pulse and midriatic pupil and other signs of cranial autonomic inhibition, but with none of the metabolic symptoms of thyroid disease.

The material from which this study was made consists of the combined analysis of 380 patients and case histories. The greater part of the material was collected from the thyroidectomized patients now present in our State mental hygiene institutions. The material, as one would expect,

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presented a mass of information and suggested an endless number of questions. The ever-present factor of individual human differences so clouded the picture that the results fail to establish a fool-proof formula comparable to the Stanford-Binet values in interpreting mental deficiency. There were, however, many constant factors of interest which may be of some assistance in diagnosis.

Because of the enormity of both the subject of thyroid disease and schizophrenia, it became necessary to confine this analysis to the "apparent" interrelated features occurring concomitantly in the same patient.

The questions of interest deal primarily with the confusing nervous and mental symptoms associated with the schizophrenic syndrome and thyroid disease; the neuro-dynamics of the autonomic nervous system; the mechanism of emotional instability; and the question of predicting recovery and post-operative mental collapse in certain types of hyperthyroidism.

In the schizophrenic reaction types, there is always to be found some associated precipitating factors. These may be psychologic, physiologic or organogenic. In the latter, we find the various thyrotoxicoses with toxins which undoubtedly contribute to the abnormal mental state. Apparently, there is an acute thyrotoxic psychosis; however, this is an entirely different clinical picture than that of hyperthyroidism. We don't see hyperthyroidism in the classical dementia praecox, the constitutionally predisposed type. I question seriously if true hyperthyroidism is a contributing factor in the development of schizophrenic reaction types.

No attempt is made to clarify all the differential features of thyroid disease and autonomic nervous system imbalance. But I wish to discuss a type of apparent hyperthyroidism which simulates cranial autonomic inhibition and in which type thyroid surgery is of no value. This is as far as I can tell a definite clinical entity, in that

Read before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

it is found only in the classical schizophrenic reaction types.

First of all, what are the essential features of this so-called Schizophrenic Reaction Type Syndrome?

As the name implies, it refers to a group of symptoms which at the onset are similar to those of schizophrenia or dementia praecox. The onset is later in life than the constitutional dementia praecox. The onset is acute. Any complaints on the part of the patient at the time of onset are physiological and somatic. There are only mild and unnoticed signs of schizoidism, which are interpreted as such by the psychiatrist. These symptoms go unnoticed by the family and friends. There is usually a history of one or more physical diseases. Commonly, a complaint of nervousness, but interpreted in terms of neurogenic rather than psychogenic disease. The history does not show the shy, seclusive, indifferent personality that characterizes the dementia praecox. During the acute illness, the mental symptoms are very much the same as in the true schizophrenic. From the physical standpoint, we have signs and symptoms which resemble those of a mild toxic state. The pulse is accelerated, the blood pressure elevated, the W.B.C. slightly elevated, the basal metabolic rate increased, the pupillary status slightly midriatic and indifferent. It is this group of physical symptoms which is commonly found and interpreted as signs of hyperthyroidism. These very signs are also indicative of para-sympathetic instability.

DIAGNOSIS OF HYERTHYROID STATES

There is an outward similarity between hyperthyroidism and sympathicotonic states, but the experimental work of MacLean et al³ of the Mayo Clinic seems to show that the sympathetic system is far from being stimulated in hyperthyroidism. The work of these authors seems to show that Mecholyl, which is an acetylcholine-like drug, produces tachycardia, sweating, increase in the metabolic rate tremor of hands and other symptoms similar to those of hyperthyroidism. Mecholyl stimulates the para-sympathetic system. Patients with hyperthyroidism are more sensitive to Mecholyl than normal persons. There is evidently a relationship between para-sympathetic activity and hyperthyroidism. Because of this relationship, the symptoms of cranial autonomic inhibition are too often misinterpreted as thyroid disease. To review this relationship is drifting too far into the field of pharmacology. All that is necessary here is to call attention to the use of Mecholyl as beneficial in the diagnosis of hyperthyroid states.

It is of further interest to note that the symptoms of hyperthyroidism more nearly parallel

those of cranial autonomic inhibition rather than sympathetic stimulation, and in this way the apparent hyperthyroidism is aggravated by the injection of Mecholyl.

If one analyzes the syndrome of hyperthyroidism, they will find the symptoms falling into two main groups. In the first group are the symptoms of metabolic disorder. These consist of increased metabolic rate, increase in heat production with a hot, flushed skin, the so-called "thyroid glow", with loss of weight and other associated minor metabolic changes. The other group of symptoms are neurogenic in nature, such as, tachycardia, tremor, sweating, palpitation, emotional instability, and nervousness in general.

Certainly, there is some over-lapping of symptoms, but no one can doubt that emotional instability is the result of psychic unrest. The tachycardia may result from increased oxygen consumption. However, tachycardia can also be produced by Adrenalin which stimulates the sympathetic system, or by Mecholyl which decreases the inhibitory action of the cranial autonomic system.

In the true cases of hyperthyroidism, we find all of the above symptoms blending into a picture with one symptom just as intense as the other. For our purpose here, let us forget this group. This is the true Graves' disease which is handled competently by the internist and the surgeon.

We are interested in the neurogenic manifestations, both as isolated symptoms and as a group which makes up the syndrome of cranial autonomic inhibition. A review of this series of patients clearly indicates that there are a number of surgeons throughout the country who take one or possibly two symptoms as indicative of thyroid disease, and thus proceed to remove a part of the gland. It has been reliably told of a rather prominent surgeon in this State that the indications for the removal of the thyroid in one a little nervous consists of "consent of the patient". If this is the criteria for surgical intervention, it is not at all surprising to see the great number of schizophrenics enter our State hospitals following thyroidectomy. Nervousness, you know, even in the schizoid temperament, is usually the first symptom given either by the patient or a member of the family. It is the layman's explanation of even the most malignant mental symptom.

In some of our thyroid-minded communities, if one finds nervousness and possibly a slight enlargement in the neck, this may be all that is necessary. However, if a tachycardia is added to the picture, then the diagnosis of hyperthyroidism seems to be positive and all that is

needed is consent for operation. Then, too, is that very helpful symptom known as increased basal metabolism rate. Just a look at the apparatus alone which records this rate is good for an extra ten dollars and in some cases, twenty-five dollars. Our hospitals and sanitariums are filled with emotionally unstable people, in all of whom one may find an increase in the basal metabolic rate. Nervousness! This is a term with many meanings. What about the rapid pulse, tremor, sweating, and certainly the increase in metabolism found in the anxiety-tension neuroses?

THYROID DISEASE AND AUTONOMIC IMBALANCE

In the same sense, one might interpret the flushed skin in the high-strung, vivacious syntonics, as evidence of the "thyroid glow". Let one of this type become emotionally out of control, and you will not only have the classical neurogenic and metabolic signs, but evidence of slight enlargement of the gland. These patients will tell you they feel a fullness in their neck. Certainly, there isn't one of you who hasn't observed periodic enlargement of the thyroid in the height of maniac excitement. Then, too, one finds the classical symptoms of the menopause: tachycardia, palpitation, flushed skin, apprehension, etc., often mistaken for signs of hyperthyroidism. There were 18 of this type found in this series of patients.

The question then resolves itself to a more thorough analysis of the early symptomatology of these borderline types in order to determine the indications for thyroid surgery.

It was admitted at the outset that it was impossible to formulate a set of fool proof rules, which would give the differential diagnosis of thyroid disease and autonomic imbalance. However, the analysis of this series shows clearly, a complete failure in the interpretation of certain signs and symptoms.

Let us start with nervousness. To the surgeon, this may mean evidence of thyroid disease. To the psychiatrist, it can and does mean the secondary symptom or the latent manifestation of any or all of the psychoses. Emotional instability is too commonly given as a symptom of thyroid disease. There is a form of emotional instability found in thyroid disease as well as any organic state. In any of the acute infectious diseases, one many find disturbed emotions. These, however, are organic in nature. The emotional reaction is a part of the individual; it is blended with the affect; it is a part of the situation; it is purposeful and understandable. It is what one expects under certain circumstances. It is the natural and normal condition of the affect. However, when we see nervousness and emotional instability in the young girl who quit school for no apparent reason, who lacks

interest in the opposite sex, who is sensitive in nature and dominated by inferiority and ritualistic complexes, and who is colorless and drab, completely out of step with reality; then we see an entirely different emotional reaction. It is the early recognition and interpretation of these symptoms which will prevent the wholesale removal of the thyroid gland.

In this series of patients studied, there were 128 with a final diagnosis of schizophrenia. Of this number, 91 gave a history of nervousness which was distinctly schizoid in nature. Thyroidectomy was performed and the patient within a few weeks to three years entered the mental hospital.

There were 84 unoperated diagnosed as dementia praecox who had enlarged thyroids, varying from slight enlargement to two times the normal size, who were discharged from the hospital as improved. The remainder are hospitalized.

I think these figures are strikingly significant in that they would seem to indicate that thyroid surgery in one with schizophrenic symptoms should be the last procedure after all other therapies have failed.

There is, of course, a rather large group of surgeons who still believe that the nervous symptoms are due to thyroid derangement, in spite of the fact that the basal metabolic rate may be normal and the thyroid glow absent. Here, again, it would seem that the term nervousness is interpreted as meaning anything but evidence of a psychotic disorder.

PSYCHOTIC SYMPTOMS FOLLOWING OPERATION

In this series of cases, a large number showed acute psychotic symptoms immediately following operation. It was shown by Barker⁴ several years ago that thyroidectomy was contra-indicated in those patients showing symptoms of dementia. Thyroid surgery seems to precipitate a psychosis in one with psychopathic heredity. A very intensive survey made by Foss and Jackson⁵ would indicate that there is no true thyroid psychosis. There is no evidence of a pathogenic relationship between hyperthyroidism and mental disease associated with it. In this series of cases, those who have recovered have been patients suffering from benign affective disorders, and in whom no direct relationship obtained between the mental disease and the hyperthyroidism.

In some sections of the country, one finds hypertrophy of the thyroid in 15 per cent of young girls. Certainly, in this number there are some who show psychopathic traits, but the direct relationship to thyroid disease cannot be demonstrated. The general hospital will see 15 patients with goiter to one in the mental hospital. Occasionally, one finds mild excitement

and restlessness in some of these postoperative patients; but in the majority of the general hospital patients, the question of psychosis is never considered.

All varieties of glandular changes may be found in the psychotic, the feeble-minded as well as the normal, yet no pathogenic relationship between a psychosis and glandular disturbance can be demonstrated. The mental state of one with hyperthyroidism is usually that of alertness, excitement, irritability, and emotional instability. These are not necessarily signs of mental disease. They may be considered as such, but only when considered with definite changes in the personality.

The all important issue is the differential features between prepsychotic nervousness as may be found in autonomic nervous system imbalance and the so-called nervousness associated with thyroid disease. Fortunately, I think we have passed the era of wholesale thyroidectomies, yet we still find the surgeon who will perform a useless and harmful operation on a young nervous girl, in whom he attributes all abnormal findings to disturbed thyroid activity.

Here is a summary of a classical history, the kind we all see so frequently. A young woman aged 32, had been seclusive for 15 years, with self-accusatory ideas and a sensitive temperament. She became "nervous" in January, 1939, and quit work, remained at home and in bed most of the time for no apparent physical reason. In April of the same year, a thyroidectomy was performed. In November of the same year, she was admitted to a State Hospital. Because of the colored, distorted history given on admission, the diagnosis was given as psychosis due to or associated with hyper-thyroidism. However, after two years of hospitalization, the diagnosis was changed to schizophrenia. Then, too, one finds in so many histories the statement that the patient has had poor mental health since the operation. In the majority of such cases, if one obtained a careful history, they would find "poor mental health" existing long before the operation. Hyperthyroidism does not produce dementia praecox.

One commonly finds in a history the statement that "the patient has had periodic attacks of hyperthyroidism, would improve for several months, and then return to the old condition". It seems this type recovers more readily if the surgeon isn't around. It would appear that the recurrent manias are the most vulnerable of all emotional states. Not infrequently, one sees a picture like this one: Thyroid surgery, 1926; admitted to mental hospital two months later; recovery in seven months. Thyroidectomy again in 1928; two months later admitted to mental hospital; recovery in five months. Thyroid sur-

gery again in 1933; admitted to mental hospital four months later this time, and now remains permanently on the hospital roll, with recurrent manic attacks in a schizoid personality.

Nervous tension, sweating, palpitation, rapid pulse, and increased metabolism are not always indicative of hyperthyroidism. This study clearly indicates the need for a better understanding and interpretation of the primary metabolic and secondary neurogenic symptoms of thyroid disease, and the primary psychogenic and secondary neurogenic factors of mental disease.

SUMMARY

In summarizing briefly, it is suggested that a more careful analysis be made of the secondary neurogenic symptoms found in schizophrenia and thyroid disease. Nervousness, in its fullest meaning, is usually associated with psychogenic rather than metabolic disease. The neurogenic features of the schizophrenic-reaction type are blended with the psychogenic symptoms, and present the classical features of autonomic nervous system imbalance. The psychogenic element in true hyperthyroidism is entirely secondary to the metabolic changes.

Emotional instability should be interpreted in terms of the affect in order to properly evaluate metabolic influences. In these borderline types, thyroid surgery should be the last method of treatment, and then only in the very doubtful cases should it be tried.

When there is direct evidence of psychic trauma or of psychopathic trait, the practice of thyroidectomy leaves untouched the fundamental disorder.

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Every hospital patient who produces sputum, regardless of his diagnosis, should at least have his sputum examined for tubercle bacilli. A tuberculosis-conscious medical staff will order more X-ray films of the chest, especially among the groups of patients in whom the disease is more prevalent. The hazard of exposure from the hidden cases of tuberculosis on the wards of general hospitals will remain until such time as fluorograms are used routinely in the admission departments.—Jason E. Farber, M.D. and Wm. T. Clark, M.D., *Amer. Rev. of Tuber.*, Feb. 1943.

A Comparison of the Digestibility of Meals Prepared With Animal Versus Hydrogenated Vegetable Cooking Fats

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THERE are several meanings associated with the term "digestibility". McLester, in his book "Nutrition and Diet in Health and Disease,"¹ lists the following: (1) the percentages of the several nutrients of a food which are available to the body for use as fuel or building material—the "coefficient of digestibility"; (2) the ease and comfort with which food is assimilated as measured by the demands it makes upon the stomach and intestines; (3) the smallness of the residue left in the intestine and (4) the infrequency with which it calls forth untoward symptoms. Digestibility is used in the first sense in scientific literature by nutrition workers and with the other meanings in medical practice and every day parlance.

To the average non-technical person, digestibility refers to the ease or discomfort attending the digestion of a food or a combination of foods.² Good digestion implies that the system is able to assimilate food comfortably while poor digestion means that discomfort of some sort is experienced following the ingestion of foods. Among the complaints³ listed by persons suffering discomforts due to poor digestion are vomiting, diarrhea, gas, belching, heart burn, regurgitation and headache.

The present work was carried out to study the relative digestibility of animal and vegetable cooking fats when by digestibility is meant the ease and comfort with which the food is assimilated. This, in turn, is measured by the demands the food makes upon the stomach and intestines and the infrequency with which it calls forth untoward symptoms.

For this work, meals containing more than the average amount of fried foods and pastries were fed during the test periods in which the fats were being investigated. At other times, the subjects ate control meals containing only a moderate amount of fat.

Four groups of university students were observed consecutively for periods of six weeks each. Each group consisted of ten men and ten women, a total of eighty persons being studied in the course of the experiment. The ages of the subjects varied from 17 to 40 years. The heights ranged from 65 to 73 inches for men, and from 59 to 70 inches for the women. The men weighed from 123 to 182 pounds and the women from 79 to 188 pounds. As these data indicate, short, tall, thin and fat individuals, as

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well as those of so-called average stature, were included in the groups.

During the first week (control period) of the experiment, a normal well-balanced diet was provided for each group. During the second and third weeks of the experiment, an adequate diet varying from the control diet only in having a higher fat content, was served. The diet during the fourth week (second control period) was essentially the same as that of the first week, while the menus of the second and third week were duplicated during the fifth and sixth week.

The fresh foods and the vegetables served varied with the season of the year. Group I ate the special meals during July and part of August. Group II was served during October and part of November. Group III ate the special meals during the first three weeks in December and after a three weeks interval resumed the meals in January for another period of three weeks. The last group was fed during February and part of March.

The fats used in the preparation of the meals were purchased in Columbus on open market. A nationally sold brand of lard of good quality and generally recognized as typical of the best lards* available served as the animal fat, while the hydrogenated vegetable fat used was Crisco, a well-known brand sold for many years as a household shortening.

In return for their meals the individuals who participated as subjects for the experiment agreed to eat a minimum helping of every food served. When this had been eaten, second helpings were available and no restriction was placed on the amount that any subject might eat during any meal. Since the individuals varied so markedly in size and habits, this precaution was deemed necessary in order to avoid starving or stuffing part of the subjects who had agreed not to eat elsewhere between meals.

The first week of each experimental period

From The Department of Physiological Chemistry, The Ohio State University.

*Armour's Silver Leaf Lard.

served as the control week** in which the group was put on a balanced diet containing moderate amounts of pastry, fried and other fatty foods. Since the subjects could eat as much food as they desired, both the undernourished and the overnourished subjects had a chance to reach their average capacities during the control period.

During the next two weeks, designated as the first test period,** half of the subjects (referred to as Group A) received meals prepared exclusively with hydrogenated vegetable fat, while the remainder of the subjects, Group B, were given identical meals prepared with lard. In order to minimize the amount of fat from other sources, no pork was served during the test period and salad dressing was reduced to a minimum.

Butter was used at all times as a table spread by both groups.

The first test period was followed by a second control week in order to permit the subjects to return to essentially the same condition as at the end of the first week, or the beginning of the first test period.

During the last two weeks designated as the second test period, the same menus were served as during the first test period. This time, the subjects who had previously eaten the meals prepared with hydrogenated vegetable fat (Group A) were served the food prepared with lard, while those who had previously received the meals prepared with lard (Group B) were given the food prepared with hydrogenated vegetable fat. However, the subjects themselves were never told the purpose of the investigation and did not know that different fats were being used in the preparation of the food for the groups.

The diets were selected to establish conditions under which differences in reaction might be observed and measured. Since persons eating a restricted fat diet might not be subject to possible discomforts arising from a meal including a high proportion of fat-rich foods, menus were planned to include food such as are typical of a Sunday or holiday dinner. These rich foods usually prove more tempting than the ordinary diet and people are likely to indulge freely.

No attempt was made to analyze the food eaten by the subjects. However, about two pounds of test fats per week per person were used in the preparation of the meals. Not all of this fat was eaten, since part of the material used in deep-fat frying was eventually discarded.

The subjects for the experiments were weighed at the beginning of every control period and test period and their physical condition checked at the end of each period. They were also instructed to report at once any physical discomfort or

ailment experienced during the course of the experiment. Thus, gastro-intestinal symptoms such as stomach pains, nausea, vomiting, constipation or diarrhea were reported at once, if present.

In these experiments, there were two distinct sets of controls. Each subject served as his own control for both high fat diets since he ate a normal diet for two different weeks, a high lard diet for two consecutive weeks, and a rich in hydrogenated vegetable fat diet for two other weeks. Furthermore, the persons eating the lard diet served as controls for those eating the hydrogenated vegetable fat diet and vice versa.

The individual data for the subjects participating in the experiments are listed by groups in Table I. The weights of the subjects recorded are those at the end of the first control week before either of the two fats had been fed, while the per cent changes in weight were calculated by dividing the change in a subject's weight during a test period by the weight recorded for the subject. There was no appreciable gain or loss in weight when either of the test fats was eaten.

The table indicates gastric and intestinal symptoms, but does not show the frequency of occurrence. In most instances, the disturbance occurred once during the test period. However, among the 80 subjects there were three exceptionally sensitive persons who could not tolerate a high fat diet. No. 19 in Group II and No. 13 in Group III vomited frequently, while Subject 20 of Group II reported repeated nausea when on a high fat diet. Subject 18 of Group III is not included in the discussion of results since he dropped out of the experiment because of an upper respiratory infection at the end of the first three weeks. If more than one gastric symptom happened to be experienced by the same individual on a particular diet, the most severe symptom is one recorded in the table (vomiting>nausea>stomach pains).

No symptoms of any sort were reported by any subject during the control period. When the test fats were fed, gastric or intestinal disturbances were experienced by a total of 38 individuals (19 men and 19 women) or about 48 percent of the 79 individuals counted. Of this group 15 persons (about 19 percent) experienced symptoms from eating each of the fats, 20 persons (25 percent) were affected only by lard and three persons (not quite 4 percent) were affected only by the hydrogenated vegetable fat. The total number of individuals involved in the hydrogenated vegetable fat reaction was 18, or slightly less than 25 percent of the entire group, while 35 persons, or 44 percent, were reactive toward lard. From these data, hydrogenated vegetable fat appears to be only about half (18 to 35 or 51.4 percent) as likely to produce a gastric or an intestinal disturbance as animal cooking fat (lard).

**See typical menus on Page 428.

***See typical menus on Page 428.

Table I
Data Showing How Meals Prepared with HV Fat and Lard Respectively Agreed with Human Subjects

Group I										Group III											
Subject	Age	Ht.	Wt.	Gastric Symptoms		Intestinal Symptoms		Pct. weight change		Subject	Age	Ht.	Wt.	Gastric Symptoms		Intestinal Symptoms		Pct. weight change			
				HV Fat	Lard	HV Fat	Lard	HV Fat	Lard					HV Fat	Lard	HV Fat	Lard	HV Fat	Lard		
Men										Men											
1	29	70	147	-	-	-	-	0	0	1	18	66	130	-	-	-	-	0	1.5		
2	30	68	144	-	-	-	-	0	1.7	2	18	70	155	-	††	-	-	0	0		
3	24	73	182	-	-	++	-	-1.1	0	3	20	67	123	-	-	-	-	2.4	2.4		
4	24	75	173	-	-	-	-	1.7	1.1	4	19	71	156	-	-	-	-	0	2.3		
5	26	68	154	-	-	-	-	1.3	1.3	5	19	72	151	-	-	-	-	0	0		
6	22	72	173.5	-	†††	-	+++	0	0	6	20	72	156	-	-	-	-	0	1.3		
7	19	73	126	-	†††	-	+++	0	1.6	7	20	68	136.5	-	-	+	†††	0	0		
8	23	72	169	-	†††	-	-	3.3	0	8	23	72	165	-	-	-	-	0	0		
9	25	67	137	-	-	-	-	0	0	9**	26	70.5	144	-	††	-	††	**	0		
10	31	68	155	-	-	-	+	1.9	3.2	10	22	67	142	+	†	-	-	5.1	2.8		
Total Reactions				0	2	1	3			Total Reactions				1	3	1	2				
Women										Women											
11	40	70	146	-	-	†	-	0	1.4	11	19	63.5	110	-	-	-	-	2.8	1.8		
12	21	65	107	-	-	-	-	0	0	12	20	62	128	-	-	-	-	0	1.6		
13	29	62.5	134	-	††	+++	-	0	0	13	23	64	128	†††	†††	-	-	0	-1.2		
14	21	65.5	143	-	†	+++	+++	0	0	14	20	67	149	-	-	-	-	0	1.3		
15	21	63	145	-	††	-	+++	0	-2.1	15	20	68	104.5	-	-	-	-	2.4	1.9		
16	19	67.5	145	-	-	-	-	0	0	16	21	67.5	128	-	-	-	-	1.6	1.2		
17	21	63.5	127.5	-	-	-	-	0	-2.7	17	21	63	127	-	-	-	-	2.0	2.4		
18	19	67	108	-	-	-	+++	0	2.8	18	19	67	139	-	††	-	-	0	0		
19	33	63	137	-	-	-	+++	0	3.7	19	20	60	117.5	-	††	+	††	2.1	1.3		
20	31	62	132	-	†††	-	††	2.3	-1.5	20	21	70	151	-	††	-	-	0	0		
Total Reactions				0	4	4	5			Total Reactions				1	4	1	1				
Group II										Group IV											
Subject	Age	Ht.	Wt.	Gastric Symptoms		Intestinal Symptoms		Pct. weight change		Subject	Age	Ht.	Wt.	Gastric Symptoms		Intestinal Symptoms		Pct. weight change			
				HV Fat	Lard	HV Fat	Lard	HV Fat	Lard					HV Fat	Lard	HV Fat	Lard	HV Fat	Lard		
Men										Men											
1	20	72.5	155	-	††	-	††	1.3	0	1	25	69	153	-	-	-	-	0	0		
2	22	68.5	157	-	††	-	-	1.2	2.2	2	23	67	145	-	-	-	-	1.4	1.4		
3	17	72	158	-	†	-	††	0	0	3	19	67	145	-	-	-	-	1.0	1.0		
4	21	68	167.5	-	-	-	-	0	0	4	19	70.5	142	+	††	-	-	0	1.7		
5	19	72	169.5	-	-	-	-	1.1	1.5	5	20	68.5	151.5	+	†	-	-	1.6	0		
6	18	66	137.5	-	†	-	†	1.8	0	6	19	70	158	-	-	-	††	0	0		
7	23	66.5	150.5	-	-	-	-	0	1.7	7	18	68	139	-	-	-	-	0	0		
8	22	65	130.5	-	-	-	-	0	0	8	23	73	147	-	-	-	-	3.1	0		
9	20	67	132	†††	†††	††	††	1.5	0	9	21	70	143	-	†	-	††	0	1.4		
10	19	68	134.5	††	††	††	††	0	1.9	10	21	73	180	-	†	-	-	1.1	1.1		
Total Reactions				2	6	2	5			Total Reactions				2	4	0	2				
Women										Women											
11	26	68	164	-	†††	-	-	0	0	11	20	66.5	139	-	†††	-	-	0	4.3		
12	21	63	116.5	-	-	-	-	0	1.7	12	25	61.5	121	-	-	†	††	0	0		
13	21	68	165	-	-	-	-	0	0	13	19	65	116.5	-	-	-	-	0	1.3		
14	27	65.5	122	-	†	-	†	0	0	14	21	64	123	-	†	†	-	1.6	1.2		
15	20	64.5	118	-	-	-	-	1.3	1.2	15	19	65.5	127	-	-	-	-	3.1	0		
16	21	68.5	188	††	-	†	-	1.1	0	16	19	66.5	121	-	-	-	-	1.6	0		
17	18	65	127	-	-	-	-	0	2.4	17	20	68	150	-	-	-	-	0	0		
18	22	65.5	136.5	-	-	-	-	1.1	0	18	19	67	142	-	-	-	-	1.4	2.1		
19	20	62	107	-	-	-	-	0	2.8	19	25	60	103	†	-	†	†	0	0		
20	26	59	79	†††	††	††	-	1.3	1.2	20	21	67.5	145	-	-	-	-	0	1.4		
Total Reactions				2	3	2	1			Total Reactions				1	2	3	2				
Total Reactions—All Groups														9	28	14	21				

†Stomach pains ††Nausea †††Vomiting ‡Constipation ‡‡Diarrhea
**Withdrew from experiment on account of upper respiratoryinfection. Results not in summary.

When objective symptoms alone are considered, it is evident that 15 different individuals (19 percent) were affected. Of this number, five individuals vomited, seven had diarrhea and three others suffered from both vomiting and diarrhea.

When the fats causing the reactions are studied, it may be seen that one sensitive individual experienced both diarrhea and vomiting after each of the test fats; a second person merely vomited in each case; a third individual developed diarrhea

in both instances. Hydrogenated vegetable fat caused both vomiting and diarrhea in one subject not affected by lard, while lard similarly affected one subject not affected by hydrogenated vegetable fat. Four other persons vomited while on the lard diet and six developed diarrhea. Thus, the total number of individuals with objective symptoms from eating meals prepared with hydrogenated vegetable fat was three (3.8 percent) while 14 individuals (17.7 percent) experienced objective symptoms from meals prepared with lard. From these data, animal fat (lard) used in the preparation of meals appears to be over four times (fourteen to three or 466 2/3 percent) as likely to cause gastric or intestinal symptoms of an objective nature as hydrogenated vegetable fat.

NORMAL MENUS FOR CONTROL WEEK

MONDAY

Breakfast	Luncheon	Dinner
Grapefruit Nut Roll Beverage	Cream of Tomato Soup Pineapple and Cottage Cheese Salad Bread and Butter Beverage and Ice Cream	Ham Loaf-Raisin Sauce Creamed Potatoes Head Lettuce Salad Bread and Butter Apple Brown Betty

TUESDAY

Breakfast	Luncheon	Dinner
Stewed Prunes Cold Cereal Beverage	Baked Lima Beans Spring Salad Boston Brown Bread Beverage Cookies	Braised Liver Green Beans Lettuce and Egg Salad Bread and Butter Beverage Cocoanut Cream Pudding

WEDNESDAY

Breakfast	Luncheon	Dinner
Tomato Juice Doughnuts Beverage	Macaroni and Cheese Waldorf Salad Bread and Butter Beverage Grapes	Smoked Sausage Escalloped Potatoes Molded Cranberry Salad Bread and Butter Beverage Ice Cream

THURSDAY

Breakfast	Luncheon	Dinner
Orange Halves Fried Egg Toast Beverage	Chili Con Carne Pea, Cheese and Carrot Salad Bread and Butter Beverage Honey Rice Krispies	Stuffed Flank Steak Buttered Spinach Banana Nut Salad Bread and Butter Beverage Pineapple Tapioca

FRIDAY

Breakfast	Luncheon	Dinner
Stewed Apricots Cream of Wheat Beverage	Glazed Carrots Baked Potato Pickled Beet Salad Bread and Butter Beverage	Tuna Casserole Molded Pear Salad Bread and Butter Beverage Chocolate Pudding

SATURDAY

Breakfast	Luncheon	Dinner
Tangerine Toast and Jam Beverage	Cheese Fondue Head Lettuce Salad Beverage Cookies	Meat Pie Apple, Carrot and Raisin Salad Bread and Butter Beverage Ginger Bread-Cocoanut Frosting

SUNDAY

Breakfast	Dinner	Supper
Canned Cherries Coffee Cake Beverage	Roast Veal and Dressing Succatash Celery Cabbage Salad Bread and Butter Beverage Ice-Cream Chocolate Sauce	Toasted Cheese Sandwich Combination Salad Beverage Fruit Gelatin

MENUS WITH TEST FATS

*(Indicates foods prepared with the fats)

MONDAY

Breakfast	Luncheon	Dinner
Apple Sauce *Muffins and Butter Beverage	*Corn Fritters *Fried Pineapple Ring Molded Fruit Salad Bread and Butter Beverage *Sliced Pears-Brownie	*Salisbury Steak *Potato Puff *Creamed Carrots *Muffins and Butter Beverage *Rhubarb Tart

TUESDAY

Breakfast	Luncheon	Dinner
Stewed Prunes *Griddle Cakes Beverage	*Cheese Omelet *French Fried Potatoes Bread and Butter Beverage *Fudge Cup Cake	*Beef Croquettes *Fried Beans Head Lettuce *Cornbread and Butter Beverage *Lemon Chiffon Pie

WEDNESDAY

Breakfast	Luncheon	Dinner
Orange Halves *French Toast Beverage	*Creamed Chipped Beef on Biscuits *Lattice Potatoes *Biscuits and Butter Beverage Fruit Gelatin	*Breaded Veal Cutlets-Tomato Sauce *Hash Brown Potatoes *Fried Carrots *Muffins and Butter Beverage *Apricot Upsidedown Cake

THURSDAY

Breakfast	Luncheon	Dinner
Stewed Peaches *Fried Mush Beverage	*Corn Beef Croquettes Waldorf Salad Bread and Butter	*Pan Fried Liver *French Fried Onions Tomato Aspic Salad *Biscuits and Butter Beverage *Cherry Cake

FRIDAY

Breakfast	Luncheon	Dinner
Tomato Juice *Muffins and Butter Beverage	*Rice Croquettes Cheese Sauce Cole Slaw Bread and Butter Beverage *Date Bar	*Fried Halibut *French Fried Potatoes Pineapple Salad *Muffins and Butter Beverage *Apple Pie

SATURDAY

Breakfast	Luncheon	Dinner
Baked Apple *Fried Egg Beverage	*Parkerhouse Cutlets *Fried Cabbage Bread and Butter Beverage *Orange Ice-Cookies	*Veal Oysters *Whole Potato *Creamed Peas *Cornbread and Butter Beverage *Boston Cream Pie

SUNDAY

Breakfast	Dinner	Supper
Bananas and Cream *Cinnamon Rolls Beverage	*Veal Patties-Mushroom Sauce *French Fried Sweet Potatoes *Creamed Carrots Lettuce and Egg Salad *Biscuits and Butter Beverage *Alaska Pie	Molded Fruit Salad *Toasted Muffins Beverage *Tomato Soup Cake

References will appear in Reprints.

The Non-Surgical Treatment of Tubal Obstruction

ROBERT M. INGLIS, M.D.

RUBIN in reporting 5269 insufflations of the Fallopian tubes over a period of 20 years found 32.4 per cent to be completely obstructed and 33.1 per cent partially so. Sealing of the tubes from pelvic inflammatory disease with or without peritonitis and adhesions is a major factor in sterility work and one which is highly resistant to all forms of treatment thus far tried in our therapeutic armamentarium.

The diagnosis is made on repeated insufflations with carbon dioxide or air or the instillation of opaque substances followed by X-Ray. In cases of hypoplasia of the uterus and tubes, endocrine therapy is of benefit. Obstructing tumors as myomata may be corrected by surgery. Total obstruction by kinking of the tubes by retroversion and retroflexion of the uterus is rare in our experience, but a supporting pessary or suspension will often correct such a defect. However, in tubes sealed from an old inflammatory process, the only treatment that has had any success is surgery. Freeing and resection of the fimbriated end has been partially successful but isthmic obstruction has, in most cases, defied surgical methods. Forsdike concluded that operations on this part of the tube offer no reasonable prospect of relieving sterility. Even the fimbriated end operations have proved discouraging because of the resultant adhesions from trauma and suturing about that extremity of the tube.

Another radical procedure was executed by Von Graff, that of intrauterine implantation of an ovarian graft. This likewise gave poor results in addition to the hazards of multiple surgery.

The Newman thermo-flo machine has, on the other hand, offered a treatment for impatent tubes that requires no surgery, has no mortality, no discomfort, hospitalization, or financial sacrifice. By maintaining high intravaginal heat for half hour periods, the resultant hyperemia of the pelvic organs seems to "dissolve" or break down adhesions and stenoses and allow the parts to restore themselves to normalcy. Adherent retroversions will often be released, adnexal masses disappear, and pain and tenderness be relieved.

The cases that represent the basis for this paper all had repeated insufflations that failed to elicit any drop in pressure on the mercury column, positive auscultation of gas passages, or the resultant shoulder pain from the lodging of the bubbles under the diaphragm. All insufflations

The Author

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were done in the pre-ovulatory period following the cessation of menstruation when the congestion and succulence of the endometrium and tubal epithelium is at a minimum and the danger is least for blowing out endometrial implants onto the ovary and peritoneum.

In most cases the thermo-flo treatments were given in series of five with an insufflation at the end of each series. As will be noted, the greatest number which were required for tubal patency was eighteen, the least, five. The series contains eight cases of tubal obstruction as evidenced by repeated failure on insufflations. Two patients had uterosalpingograms in addition to the insufflations. The average number of insufflations before the successful one was 3.7 per case. The average number of thermo-flo treatments was ten. Seven out of the eight were successfully opened as evidenced by drop in the mercury column, positive auscultation, and positive shoulder pain. The eighth case was operated after X-ray studies on the tubes and uterus. The right tube had about one centimeter of its length missing in its middle portion. The history included a probable ruptured ectopic tubal pregnancy of the right side which was not subjected to surgery. The left tube was occluded at the fimbriated end. This was freed of adhesions and the "circumcision cuff" operation was done on the fimbriated end. Post-operative insufflation, not done for three weeks, was negative for passage as were two more Rubin tests. Uterosalpingography again showed complete occlusion of the fimbriated end. No further treatment was advised. In retrospect, we would suggest insufflation within one week of surgery in these cases so as to prevent the formation of occluding adhesions.

We believe the Newman thermo-flo to be a new approach to the sterility problem from the standpoint of complete or partial tubal obstruction. The series is limited but is sufficient to promise greater success than by any other means so far attempted with less discomfort and danger to the patient.

Threatened Abortion*

Results of Treatment in One Hundred Forty Cases

WYNNE M. SILBERNAGEL, M.D., and OLAN P. BURT, M.D.

THREATENED abortion is a frequent condition and unless treatment is instituted promptly, it results in the majority of cases, in inevitable, incomplete or complete abortion.

The spontaneous abortion rate is mentioned as 18 per cent.¹ According to Hertig,² 70 per cent of all spontaneous abortions are due to developmental deficiencies of maternal, fetal or chorionic origin. If these figures are to be accepted a high percentage of "salvage" in cases of threatened abortion is improbable if not impossible. There is a need for revision of the criteria of "threatened abortion" if the percentage of salvage is to have practical importance and results of therapy are to have clinical significance.

Vaginal bleeding or spotting, with or without cramping, should be present, after bleeding from lower genital tract lesions has been excluded, before a diagnosis of threatened abortion should be made.

The abortion or threatened abortion may be the terminal phase of an already interrupted pregnancy.³ In a series of 100 consecutive cases of threatened abortion reported by Rutherford, only 22 of 91 presumably normal pregnancies developed to the period of viability.⁴ In cases of deficiencies of development of the ovum the death of the embryo occurred on the average of six weeks before the actual abortion occurred. In these cases therapy would be valueless.

Good results in the treatment of habitual abortion by the use of progesterone have been reported,⁵ but the use of progesterone preparations in the treatment of threatened abortion is not very encouraging.⁶ This may be explained by Kurzrok's observation that in some cases increased uterine motility followed the administration of progesterone.⁷

The fear that the use of substances to prevent threatened abortion might allow pathologic ova, not aborted, to develop with resultant defects has been allayed by Shute.⁸ He reported 443 patients with threatened abortion treated by vitamin E and/or progesterone who showed a production of deformed fetuses of only 2 per cent.

For several years vitamin E (natural) has been employed in the treatment of abortion and its value has been reported.^{9,10,11} Later the synthetic vitamin E was used orally in a small series

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of cases with good results.¹² More recently there has been made available a combination of the natural tocopherols. According to our experience the oral use of the latter preparation combined with the parenteral use of the alphotocopherol acetate has been more efficacious than other forms of medication in the treatment of threatened abortion.

PATIENTS STUDIED

The results of treatment of 140 patients with threatened abortion in 870 consecutive pregnancies form the basis of this report. All were private patients and none was hospitalized unless the abortion became inevitable. The threatened abortion percentage in this series was 16.09 per cent. One hundred and twelve (80 per cent) of these patients had either complete or incomplete abortions and 28 (20 per cent) were either delivered at term or are now to the period of viability; 16.4 per cent of these patients delivered fetuses showing deficiencies of development.

Vaginal bleeding, with or without cramping, was the only criterion for the diagnosis of threatened abortion. Uterine cramping was of no significance unless associated with vaginal bleeding or spotting. Bleeding due to local lesions was excluded. In all cases the blood serology was negative. Basal metabolism determinations were made in every case and sufficient thyroid extract or Lugol's solution was administered to bring the basal metabolic rate to approximately plus 5 per cent.

TREATMENT

At the first sign of bleeding the patient was immediately put on absolute bed rest. No opiates were used. An ice bag to the lower abdomen was used to control pain and if necessary barbiturates

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were given to provide rest and relaxation. No patients were allowed out of bed until all vaginal spotting had ceased for a period of 48 hours. They were then allowed gradually to resume their household duties.

CONTROL SERIES

This group consisted of 50 patients (35.7 per cent) of the series. The only treatment used in this group was absolute bed rest, ice bag to lower abdomen and barbiturates for relaxation. Forty-seven cases (94 per cent) aborted; three cases (6 per cent) carried the pregnancy to term. Five embryos showed deficiencies of development. The corrected percentage of salvage is 6.6 per cent.

PROGESTERONE

Fourteen patients (15.5 per cent) of the patients who received treatment were given progesterone parenterally. Twelve (85.7 per cent) aborted and three embryos showed developmental deficiencies. Two (14.3 per cent) carried the pregnancy to term. The corrected percentage of salvage was 18.2 per cent. Natural and synthetic progesterone preparations were used equally. The initial dose was two mg. One mg. was given daily parenterally until all bleeding had ceased or the abortion became inevitable.

PARENTERAL ALPHATOCOPHEROL ACETATE

Twenty patients received alphetocopherol acetate intramuscularly either alone or in combination with the natural tocopherols and synthetic alphetocopherol acetate. Nine (45 per cent) aborted. Eleven (55 per cent) of the patients delivered normal babies or are now beyond the period of viability. Of those that aborted two embryos showed deficiencies of development. The corrected percentage of salvage is 61.1 per cent. Two hundred mgs. of alphetocopherol acetate in peanut oil were given intramuscularly at the onset of bleeding. This same dosage was repeated daily until all bleeding had ceased or abortion became inevitable. After the threatened abortion was controlled, these patients received 50 mgs. daily of the natural tocopherols, or 9 mgs. of synthetic alphetocopherol acetate until after the period of viability. When alphetocopherol acetate alone was administered intramuscularly to six patients, five (83 per cent) aborted and only one patient (16.7 per cent) went to term. One embryo showed developmental deficiency giving a corrected percentage of salvage of 20 per cent. When alphetocopherol acetate was given intramuscularly and orally to seven patients, three (42.9 per cent) of these aborted and four (57.1 per cent) carried the pregnancy to term. One embryo showed developmental deficiency, making the corrected percentage of salvage 66.7 per cent. Seven patients received alphetocopherol acetate parenterally with the natural tocopherols orally.

One (14.3 per cent) aborted and six (85.7 per cent) delivered normal babies.

TOCOPHEROLS ORALLY

Natural tocopherols were used orally in eleven patients. Eight (72.7 per cent) aborted and three (27.3 per cent) delivered normal babies. Four patients aborted embryos showing developmental deficiencies, making the corrected percentage of salvage 42.8 per cent. The dosage was 200 mg. at the onset of bleeding and 150 mg. daily until all bleeding ceased or abortion became inevitable. If the threatened abortion was controlled, 50 mg. were given daily until after the period of viability.

Alphetocopherol acetate by mouth alone was used in sixteen patients. Fourteen (87.5 per cent) aborted and two (12.5 per cent) were delivered of normal babies. Four aborted embryos showed deficiencies of development, making the corrected percentage of salvage 16.7 per cent. The initial dose was 12 mg. and 24 mg. were given daily. After all bleeding ceased, 9 mg. were given daily until after the period of viability.

WHEAT GERM OIL

Freshly extracted wheat germ oil only was given orally in 29 patients. Twenty-one (72.4 per cent) aborted and eight (27.6 per cent) were delivered of normal babies. Five aborted embryos showed developmental deficiencies, making the corrected percentage of salvage 33.3 per cent. The initial dose was eight capsules of five minims each, each capsule representing two and five-tenths gms. of freshly extracted wheat germ oil. Twelve capsules were given every 24 hours until bleeding ceased or abortion became inevitable; then three capsules were given daily until after the period of viability.

DISCUSSION

Evaluation of any therapeutic measure is difficult unless it is perfectly controlled and observations are made upon a large series of patients. The beneficial effects of progesterone have been reported by many investigators. In our experience natural or synthetic progesterone was not satisfactorily effective. A sufficiently large control series of patients with threatened abortion, as evidenced by abdominal cramps and vaginal bleeding, who received no treatment other than bed rest and sedation showed that 6.6 per cent went to term. With the use of progesterone only 18.2 per cent went to term. This is not a sufficient percentage of salvage in cases of threatened abortion to warrant the routine use of progesterone. A certain number of abortions are inevitable due to maternal, fetal or chorionic causes. In this group, 23 (16.4 per cent) of the fetuses aborted showed deficiencies of development. Any form of therapy in this group was valueless. The

intramuscular use of alphatocopherol acetate alone produced a salvage of only 20 per cent. Alphatocopherol acetate used alone, both intramuscularly and orally produced a continuation of pregnancy in 66.7 per cent. The intramuscular use of alphatocopherol acetate combined with the oral administration of the natural tocopherols produced a salvage of 85.7 per cent. The oral administration of alphatocopherol acetate alone allowed 16.7 per cent of the pregnancies to continue. This was nearly as effective as progesterone alone. The oral use of natural tocopherols produced a salvage of 42.8 per cent and the use of wheat germ oil alone saved 33.3 per cent of the pregnancies.

SUMMARY

1. An evaluation of the therapeutic agents used in a series of 140 cases of threatened abortion is presented.

2. Progesterone produced a continuation of pregnancy in 18.2 per cent.

3. The percentage of fetal salvage obtained in patients treated with alphatocopherol acetate intramuscularly and the natural tocopherols orally was 85.7 per cent.

4. The threatened abortion rate is 16 per cent or higher.

5. No full term fetal abnormalities were observed.

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In reactivation of arrested tuberculosis, pregnancy and birth are relatively unimportant when compared with work and worry and the loss of sleep caring for a colicky baby.—Lewis J. Moorman, M.D., *Trans., Nat. Tuber. Assn.*, 1941.

Fitness, Food Allergy and Predisposition To Common Cold

The ability to avoid common cold is associated closely with the ability to keep fit. A preponderance of persons questioned finds it difficult to keep either fit or cold-free without adequate sleep and adequate conservation of the reserves against exhaustion. The most commonly attributed sources of exhaustion are those imposing stress on the temperature-regulating mechanisms: wet feet, chilling. Studies at the Western Pennsylvania Hospital, Pittsburgh, have made possible a definition of fitness in its relation to ability to avoid low grade infection. The first of these studies was carried out in the rabbit.

A series of rabbits was chilled, in cool water, until the body temperature had fallen below 96 F. After drying, the rate at which each individual temperature climbed back toward normal was measured. Some of the rabbits warmed up quickly after the chilling and some slowly.

Pneumococci were injected, intravenously, one or two days later. The number of organisms injected was sufficient to kill about ten out of every twenty unselected, healthy rabbits inoculated. The survivors were found to be, mainly, the rabbits that had warmed up quickly after the chilling test. The deaths were, mainly, in the group that had been able to warm up only slowly.

The second, third and fourth studies were carried out in man. Chilling could not be imposed conveniently. Exercise was tried first as a stress to bring out inherent differences in fitness. Finally, the reaction to inhaled 5 per cent carbon dioxide was utilized. When 5 per cent carbon dioxide was added to the inhaled air of some of the subjects, scarcely any change in heaviness of breathing occurred within the next minute. In others, a moderate increase in heaviness of breathing was observed and, in the remainder, an excessive increase. Colds were least frequent in the group with the moderate increase.

Perhaps the simplest and most convenient way of assessing fitness is through observation of the changes in the pulse rate during and immediately after a definite stress on the circulation. Persons with an excessive and persisting pulse rise after for example, climbing up a given number of steps at a given rate, are less fit than persons with a moderate and quickly diminishing rise. The moderate reaction, showing ability to respond to the stress without strain, is the one identified with fitness and with minimum susceptibility to common cold. Fitness becomes defined in terms of ability to respond, effectively and without strain, to demands on function within the normally tolerated limits.—William Byrne Brown, M.D., Columbia, Mo. and Arthur Preston Locke, Ph. D., Pittsburgh, Pa., *Jour. Mo. S.M.A.*, Vol. 40, No. 4, April, 1943.

Sulfonamides In Appendicitis

From the Cleveland Appendicitis Survey. V.

JOHN H. BUDD, M.D., and RALPH M. WATKINS, M.D.*

IN previous articles we have published data from the Survey which covered the period of 1930 to 1942.^{1,2,3,4,5} In this report we cover only the years 1940 and 1941 because before this time the sulfonamides were not ordinarily used in appendicitis with or without peritonitis, at least in the Cleveland area.

The twelve-year reports were based on the findings of 19,401 cases. In 1940 and 1941 we had 3616 cases of simple acute appendicitis and appendicitis with peritonitis or abscess and it is of this smaller number that the current report is made.

The sulfa drugs have been offered so rapidly and popularity of special ones has risen and waned so frequently that we could not make special note of exactly which drug was used for the patients without complicating the record unnecessarily. Therefore, we have classed any sulfa drug as a sulfonamide.

We tried to form an idea, however, as to the best mode of administration and so paid special attention as to whether the drugs were used (a) locally, that is, the abdomen or incision, (b) orally or by hypodermic injection or (c) by both methods.

The report for 1940 shows that the drugs were used not nearly so much as in 1941.

SIMPLE ACUTE APPENDICITIS

There were 1336 cases of simple acute appendicitis in 1940 in which no sulfonamide was used; the mortality rate was 0.4 per cent. In 55 such cases it was used and the death rate was 7.2 per cent. We could not possibly study the details of these and that is unfortunate for more than likely these 55 patients had complicating diseases which required sulfonamide therapy.

In 1940, 91 cases of peritonitis received sulfa drugs and, as it happened, all by mouth or hypodermically. In that year none was placed in the abdomen. The death rate was 17.5 per cent. At the same time 153 people with peritonitis were not treated with sulfonamides and 9.1 per cent died.

In the same year, there were 51 abscess cases

with no sulfa treatment; 9.8 per cent died. Fifteen received sulfonamides; three died.

These 1940 figures are presented largely for the record. Certainly no conclusions should be advanced on the findings. We have stated in our original report¹ that the study of sulfonamides in appendicitis was only one part of our interest in the disease, and somewhat of an afterthought at that. When the original work was planned, sulfonamides were substances we knew of only as experimental chemicals; we had no idea they would ever attain their present popularity.

In 1941 there was some improvement in the picture. There was a great increase in the use of sulfa drugs and, even in ordinary acute appendicitis, 267 of 1504 cases were treated with them; mortality 0.7 per cent. It seems there must have been complications here also because, of the untreated group only 0.4 per cent died.

The same increase in use was true in peritonitis: 206 out of 300 cases were thus treated; the balance, 94, had a death rate of 9.5 per cent.

PERITONITIS CASES

Of the 206 treated peritonitis cases there was a group of 62 in which the drug was used only in the abdomen; mortality 12.8 per cent. In 69, it was used only by mouth or hypodermically with 18.8 per cent death rate. The remaining 75 cases received the drug both locally and orally (hypodermically) and the mortality rate in this group was down to 10.7 per cent.

In abscess cases in 1941, also, there was a large increase in the use of sulfonamides. In 20 cases the use was local only. There were no fatalities. In 33 cases the use was oral or by hypodermic and the mortality 6 per cent. Twenty-six cases treated both ways had a death rate of 19.2 per cent. In summary, 79 abscess cases were treated; mortality 8.8 per cent. Thirty-four cases were untreated and 11.7 per cent died.

The statistics of these cases in Cleveland do not bear out the experiences of the majority of the surgeons reporting in the literature on the efficiency of sulfonamides in appendicitis. Our figures are in no way intended to refute the results as set forth elsewhere. They are merely presented for the record as one aspect of the experience with this disease in Cleveland. The number of cases is too small for basing of conclusions. The final assessment of the value of sulfonamide therapy must be made from accurate statistical analysis of a very large number of

*Sponsored by the Cleveland Academy of Medicine and the Cleveland Foundation.

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comparable cases. In our series the use of these drugs was not routine and it is quite certain that in many instances their administration was only in the postoperative period after the appearance of complicating disease. Also chemotherapy was undoubtedly applied in many of the most severe and apparently hopeless cases and omitted in some whose outlook seemed favorable, the drug being then considered unnecessary. From fatalities ensuing in the severe cases in spite of sulfonamides and recovery being obtained in less serious cases treated without them, the deduction that might be made that the death rate is higher when sulfonamides are used than when surgery alone is performed would not be logically sound.

The results obtained by oral and hypodermic use of sulfonamides in peritonitis in our series were particularly unimpressive and disappointing when compared with cases treated without them. This experience at least was shared by others, and so reported, notably by Hudson and Smith⁶ who mention a fatality rate reaching 55.5 per cent in cases of spreading peritonitis treated with intravenous and intramuscular chemotherapy. The adoption of intraperitoneal injection as a routine procedure effected a reduction in their mortality rate to 8.3 per cent.

SUMMARY

Statistical figures on the use of sulfonamides in appendicitis in Cleveland in 1940 and 1941 are presented.

There was a great increase in the frequency of their use in 1941 as compared with 1940.

The results in terms of mortality rates were not statistically significant in proving the value of this type of chemotherapy. The number of cases is too small to advance conclusions. Lack of details such as adequate dosage, time of administration, and absence of that most important yardstick, untreated comparable controls, make accurate scientific deduction impossible.

Especially discouraging results seemed to follow oral and hypodermic administration.

The best results in sulfonamide-treated cases were obtained when intra-peritoneal implantation was the route of administration.

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Avitaminotic Hypertension

A challenging new theory of the mechanism of renal hypertension is suggested by Calder of the Clayton Foundation for Research, Duke University, in his recent demonstration of the causal relationship between persistent arterial hypertension and vitamin B₂ deficiency.

Among Calder's most significant data are his studies of the effects of partial or complete deprivation of "vitamin B₂ complex." This he defines as "the heat-stable fraction of the total vitamin B complex." Starting with an average blood pressure of 115 mm. Hg, a group of 50 rats showed a rise to 145 mm. Hg blood pressure when partially or completely deprived of the vitamin B₂ fractions. This rise was reached by the end of the second week and was maintained for 16 weeks (end of experiment). At any time during this period the blood pressure could be reduced to normal by restoring the heat-stable vitamin B factors to the diet. Significantly, partial B₂ deficiencies were followed by higher rises in blood pressure than those produced by a complete deficiency. This Calder explains as probably due to the debilitating effects of total deprivation of B₂ factors.

Even more pronounced debilitating effects were noted in several groups of rats which received no vitamin B whatsoever. These showed a slight (10 mm.) rise in blood pressure during the first week of complete B avitaminosis, followed by a fall in arterial pressure to below normal by the end of the second week. When this hypertensive deficiency diet was fortified by the addition of thiamin, there was a rapid rise in blood pressure to 142 mm. Hg by the end of two weeks.

Incidentally it was noted by the Duke University physiologist that his experimental hypertensive rats were very intolerant of ether, a few whiffs administered for the purpose of deepening the anesthetic effects of nembutal often proving fatal. The hypertensive rats were also unusually susceptible to shock.

While Calder's results are in seeming confirmation of his postulated avitaminotic reduction in the oxidative capacity of the kidneys, he is careful to emphasize the possibility that other metabolic abnormalities may conceivably play a part. Detailed studies of kidney functions will be necessary to prove the suggested avitaminotic renal theory. From a practical point of view, however, demonstration that the hypersensitive state may be symptomatic of "vitamin B₂ complex" deficiency has numerous important clinical applications. Other types of deficiency are now under investigation in Duke University.—W. H. Manwaring, M.D., Cal. and W. Ned., Vol. 58, No. 3, March, 1943.

Patent Omphalomesenteric Duct

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CONGENITAL patency of the omphalomesenteric duct is a rare developmental anomaly eventuating in a fecal fistula at the navel. The embryology involved is briefly as follows: The isthmus of yolk-sac proper becomes drawn out into a threadlike duct, the yolk-stalk. This stalk is incorporated into the umbilical cord at about the sixth week. It usually rapidly loses connection with the gut, degenerates and disappears. However, in about 2 per cent of all adults there is evidence of persistence of the end of the yolk-stalk which originally attached to the intestine. This gives rise to a blind pouch arising from the ileum about two feet from the ileocolic valve which we know as Meckel's diverticula. Such diverticula may range from a slight elevation on the intestinal wall to finger-like, blind tubes several centimeters long. Very rarely the original stalk may be retained in its entirety between the ileum and umbilicus. If patent, this allows intestinal contents to pass outward and escape at the navel, giving a true umbilical fecal fistula.

Persistence of the duct usually occurs as a single developmental defect and as such is amenable to surgical correction. It may, however, be associated with other anomalies which would in themselves be incompatible with life. The clinician is primarily interested in the cases which occur as single defects suitable for correction. In all, 105 such cases have been reported. A few of these had minor congenital defects but none is included in which the conditions present precluded the possibility of continued existence. A few are included which were found at autopsy on premature infants. A complete bibliography is given.

The composite clinical history was briefly as follows: The babies are usually full term healthy infants. At the time of birth it is often, though not invariably, noticed that the umbilical cord near the navel is abnormally large. When the umbilical cord sloughs off, a small, cherry-red tumor about one-half centimeter in length is left at the navel. This is frequently thought to be granulation tissue. However, at the apex of the tumor there is a small opening into which a probe can be introduced. Fecal material soon begins to discharge through this opening. The amount of drainage varies from an occasional soiling to a continuous discharge of feces. Most of the children eat well and develop normally unless some unfortunate circumstance intervenes.

The most common and most dangerous com-

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plication is prolapse of the ileum through the fistulous tract. This is reported as occurring any time from four hours after birth to two years of age but is most common at about five months. It occurs most often during a fit of coughing or crying. The prolapse appears as a red, sausage-like tumor lying across the abdomen and attached by its middle to the navel. Symptoms of intestinal obstruction rapidly appear and unless the condition is relieved, death follows. This complication is reported 26 times or in approximately one-fourth of the collected cases. Twelve of these cases were operated on, three surviving the operation. Fourteen were treated expectantly. In two spontaneous reduction occurred and the children survived. The others all died of intestinal obstruction. This makes the mortality rate for the complication approximately 80 percent.

In differential diagnosis, the only other condition causing a fecal fistula at the navel is the application of the cord tie to a loop of bowel present in an umbilical hernia. When the tie sloughs through, a direct communication is left between the bowel and the outside. Such cases are easily differentiated by their clinical course. Symptoms of intestinal obstruction appear soon after the tie is applied. Those who live until the slough occurs drain large quantities of fecal material from the navel and the obstruction disappears.

Treatment of patent omphalomesenteric duct, as with most surgical conditions has varied through the years. In 18 of the reported cases no specific attempts at treatment are mentioned. During the nineteenth century efforts were made to close the fistulous tract by applying caustics, curretting it, or ligating the umbilical tumor. Nineteen such cases are reported. These early surgical measures met with a fair measure of success in at least stopping the fecal discharge.

With the advent of modern surgery reports of the radical removal of the entire sinus tract begin to appear in about the year 1890. Forty-two such cases are listed with five deaths. At present the only question of treatment is when to operate. Some prefer to wait until the child is about one year of age.

Carcinoma of the Papilla of Vater

ERNST STERNFELD, M.D., and WM. H. MEFFLEY, M.D.

CARCINOMA of the papilla of Vater is a rare condition. In reviewing the entire literature from 1898 to 1941, Hunt reported 124 cases published. Faulkner reported an incidence of 0.04 per cent, and as little as can be gathered from the literature, an incidence of around 0.05 per cent seems to be fairly accurate. In our own material an incidence of eight out of 31,599 was found.

The etiology of this condition is not known. However, it is a beautiful example of the theory that cancers occur on places where epithelial changes are seen. If we consider the anatomy and embryology of that area, we recall that the head of the pancreas and the liver originated from one pouching of the duodenum, whereas the body and the tail of the pancreas originated from a second pouching of the duodenum, of which the remnant is known as the minor duodenal papilla, as contrasted to the major duodenal papilla, named after Vater, representing the origin of the first outpouching. To remember these facts is worth while for the discussion of treatment.

Symptoms given by cancerous condition about the papilla of Vater are many in number but yet not conclusive. Jaundice is present in all cases. Pain does not occur until the disease is advanced. However, it is known that with any type of jaundice edema of the gallbladder may occur, a fact which was first pointed out by Eppinger. There is considerable weight loss in each case, but nausea or vomiting are noticed very rarely. There is a certain amount of anorexia. There are complaints secondary to the jaundice, such as itching and occasionally slight bleeding from the mucous membrane. Diarrhea is given in the history quite frequently, although we are mainly dealing with a steatorrhea. Clinical examination of those patients allows ready palpation of an enlarged liver and sometimes the contour of an enlarged gallbladder. There might be a fever from an accompanying cholangitis, and there might be ascites if the condition has grown so far as to cause constriction of the portal vein. Diagnosis of carcinoma is very rarely made and even after exploration diagnosis is missed. It should be based mainly on the history which will give a painless, simultaneous appearance of jaundice and steatorrhea, as contrasted with malignancy of the head of the pancreas, which will give first painless jaundice

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and secondly steatorrhea. The laboratory will be helpful in establishing the definite fact of complete common duct obstruction. Takata-ara reaction and Weltmann's coagulation band will exclude with fair accuracy the presence of cirrhotic condition of the liver and the X-ray will be useful in excluding an intrinsic lesion other than a carcinoma of the papilla. X-ray will be more helpful in excluding lesions of the stomach, the gallbladder and the large bowel which may simulate the same picture.

In our experience with the one case, the use of the abdominoscope was very helpful and it was by that means that the preoperative diagnosis was established by exclusion of all other conditions which entered the differential diagnosis. All doubtful cases should come to exploratory operation and duodenotomy should be done as it is a poor procedure just to palpate the tumor and classify it by palpation under carcinoma of the head of the pancreas.

Prognosis can now be considered better than it was eight years ago. Up to that time a 35 per cent immediate operative mortality was reported by doing the transduodenal resection. Since then Whipple and his co-workers have devised a two-stage resection which has since been modified and a one-stage resection is now advisable. Immediate operative mortality is now about 20 to 25 per cent. Even though the procedure done is greater than transduodenal resection, modern means of postoperative treatment such as continuous Wangenstein suction, Vitamin K and Vitamis C therapy and earlier recognition of anesthesia shock have lessened the mortality rate.

Treatment of choice is the one-stage resection. In order to understand that recommendation it will be necessary to go through the history of operation done for carcinoma of the papilla of

Vater. Operations can be classified as either palliative or as radical. Palliative operations are short circuiting operations which anastomose the gallbladder to the stomach or duodenum. After a sufficient number of transduodenal resections were done, it was found that the life expectancy is greater in radical operation than in short circuiting operations, although there is, of course, a difference in the immediate operative mortality. Nevertheless, whenever feasible, radical operation should be carried out, the first of which was transduodenal resection. This type of operation consists in opening the duodenum, removing the tumor with the surrounding part of the wall of the duodenum and reimplantation of the common duct. The problem of the pancreatic duct was in the minds of all operators who devised whatever means possible to assure the continuance of pancreatic secretion. Coffey had modeled a very ingenious device on duodenum which, however, was never carried out in human beings. Whipple was the first one to point out that carcinoma of the papilla of Vater causes complete obstruction of the pancreatic duct and that many patients live for a number of years without getting any benefit from the external pancreatic secretion and therefore concluded that pancreatic secretion is not necessary for life. Since then ligation of the pancreatic duct and feeding of pancreatic extract was considered as adequate. Coming back to the remarks regarding the embryology of that area, it will be easily understood that extension of the growth goes primarily into the head of the pancreas and the first portion of the common duct and into the mucosa of the posterior wall of the duodenum. These experiences were made by the surgeons who restricted themselves to transduodenal resection and finally in 1935, Whipple devised his two-stage resection of the duodenum, the head of the pancreas and the beginning of the common duct, after it was shown again by Coffey that the duodenum is not necessary for maintenance of life.

Whipple's idea was accepted very readily and a number of surgeons devised several improvements of Whipple's original operation. The most concerning problem to all of them was cholangitis and subsequently biliary cirrhosis which may develop very readily whenever cholecysto or choledcho entero-anastomosis is done. Using Roux's principle, most of these modifications deal with establishing a receptaculum for the bile, removing it artificially to some extent from the main intestinal channel. Soon it was found out that a two-stage procedure makes things more complicated than easier. Originally, the two-stage procedure was thought to reduce the operative mortality, but with all the reports on hand, we can see that there is no greater operative mortality

in a one-stage procedure than there is to a two-stage procedure.

After reviewing the history of cancer of the papilla of Vater, the following case is presented:

Mr. O.B., 56 years of age, of German descent, a laborer in a local machine shop, reported to our office on March 5, 1942, with the chief complaint of severe itching for four weeks. The patient became rather suddenly aware of that condition which coincided with a spell of diarrhea which lasted for about five days. The diarrhea stopped without any treatment about five days after its onset and the patient continued to have one to two normal stools a day. The patient did not observe color and quality of his stools during the period of diarrhea but he noticed a grayish, white discoloration when his movements returned to normal frequency. Apparently there was no blood mixed with his stools. The patient lost about 12 pounds in weight during the last four weeks, but his main complaint was severe itching. He was forced to quit work on account of itching, and he also noticed that he was very weak for the last two weeks.

He had no stomach complaints of any kind. He tolerated all kinds of food well and was in good condition until the onset of present disease except for an attack of pneumonia which he had 15 years ago. His family stated, however, that he just did not look good for the last four to six months, although they had not noticed any specific changes in his condition.

Physical examination revealed moderately jaundiced patient, weighing 136 pounds, showing a great number of scratch marks all over his body. Examination of head, neck and chest revealed no pathology. Blood pressure 120/60. Pulse regular, rhythmic. Examination of abdomen showed that the liver was greatly enlarged, extending downward to the level of the umbilicus and also occupying considerable space in the left upper epigastrium. The gallbladder was thought to be felt as a tumor definitely distinguishable from the enlarged liver. The veins of the abdominal wall showed some distention and gave the appearance of an early caput medusae.

Laboratory Examination: The urine was negative except for two plus bile, and negative for urobilinogen. Blood Work: Hemoglobin 81 per cent. Erythrocytes 4,000,000 and leucocytes 6,350. Differential: Stabs 4 per cent, Segmented cells 69 per cent, Lymphocytes 20 per cent, Monocytes 4 per cent, Basophiles 1 per cent and Eosinophiles 2 per cent. Icterus index 32. Kahn and Kline were negative. Sedimentation rate 28 mm. in one hour. Prothrombin time was 66 per cent. Vandenberg was delayed biphasic. Urea-nitrogen was 31.4. Blood sugar 106. Cholesterol 166.6. Blood diastase 16. Chlorides 693. Calcium 7. Phosphorus 4. Takata-ara test showed flocculation from the third to the eighth tube. He was given a test meal which showed a total acidity of 36 per cent with a free hydrochloric acid of 24. No blood was found. Stool examination was negative for bile, positive for fat and occult blood.

The patient, who had seen seven other doctors for his itching condition, was very much opposed to entering the hospital, particularly since he had been told he had a cancer of the liver which could not be cured, but finally he agreed to abdominoscopy which was done by one of us (E.S.)

on March 12, 1942. The abdomnoscopy was very successful on account of the thin abdominal wall and loss of weight which made it easy to distend the abdomen with air and visualize the abdominal organs.

The following is the report of the abdomnoscopy: Through a stab wound the abdomnoscope was passed and the abdomen inspected with excellent vision. The liver was brownish in color; edges sharp. The gallbladder was greatly distended, about three times normal size; no evidence of tumor in stomach or implanatation of tumor mass under the peritoneum. Spleen was not visualized.

After abdomnoscopy the diagnosis of carcinoma of papilla of Vater was made with the following reasoning: There was certainly no primary or secondary lesion in the liver. There was no malignancy in the stomach or large bowel, which could be seen through the peritoneoscope. There was normal appearance of the stomach without hyperperistaltic waves, and the presence of an intrinsic obstructive lesion as well as an extrinsic as in the case of carcinoma of the head of the pancreas, were fairly well ruled out by X-ray examination which did not show any retention of barium and no deformity of stomach or duodenum. These factors were explained to the family and consent for operation was obtained.

The patient was operated on March 16, 1942, at which time a choledochostomy was done to relieve the gallbladder contents, a duodenostomy for biopsy of tumor and a cholecysto-duodenostomy for temporary relief of itching, jaundice and to build patient up for subsequent resection.

The patient recovered very well from that operation, and the diagnosis was confirmed by sections made from the biopsy. A lymph node in the angle between the common duct and the duodenum was removed and was reported without secondaries. Seventeen days after the first operation a radical resection was done. The operative report is as follows: Excising the previous scar the abdomen was opened through an upper right rectus incision. It was found necessary to break down the previously done cholecysto-duodenostomy in order to mobilize the duodenum and pyloric end of the stomach. The pylorus was identified and cut between the two layers of clamps of Van Petz sewing machine. Completion of mobilization of duodenum carried out. The common duct was bisected about one inch above its entrance into the duodenum. The head of the pancreas was cut and the duodenum bisected at the same level in its ascending portion. The duodenal stump was oversewn with two layers of gastro-intestinal sutures, using Lembert's stitch and one layer of silk. The pancreatic duct was doubly ligated with a linen tie and the raw surface peritonized with interrupted linen stitch. The entire area was covered with duodenal peritoneum. An ante-colic gastro-enterostomy was done using the Polya modification. It was found impossible to implant the common duct directly into the jejunum or the stomach so the choledochous duct was triply ligated with silk. The stump was covered with peritoneum and a cholecysto-jejunostomy done. One drain was placed at the gallbladder fossa toward the end of the common duct and the abdomen closed in layers using plain No. 1 double for the peritoneum; chromic No. 2 for fascia; five tension sutures and dermal for the skin.

The patient had a stormy course for five days postoperatively but continued to improve subse-

quently and was able to be up in a chair and to eat a special diet. A biliary fistula developed on the seventh post-operative day and continued to drain even after the patient went home. It could not be determined whether biliary drainage came from the stump of the common duct, or whether back pressure had ruptured one of the sutures of the cholecysto-jejunostomy, and therefore was a combined biliary and jejunal fistula. The latter, however, seems to be more probable because there was some active digestion of the skin around the fistulous tract resulting eventually in a wound disruption in the upper third of our incision. The skin around the defect was taken care of adequately but had not healed at the time the patient was discharged.

After having been home for three days, patient retired on April 25, 1942, at night, having had an uneventful day. He got up around midnight to make his urine. He tried to get up by himself and strained himself and experienced a sharp pain in his wound; however, he paid no attention to it until the following evening when the pain became more severe and seemed to effect a greater area. Vomiting occurred about 2 a.m. April 27, and one of us (E.S.) was called to see the patient, who was found to have complete wound disruption with extrusion of the bowel and localized fibrinopurulent peritonitis on the protruding loops of the bowel. He had apparently grown hopeless at that time. The family refused re-admission to the hospital. The patient died 24 hours later.

The case is of interest for various reasons. First of all, a correct pre-operative diagnosis had been made and we believe that the use of the abdomnoscope helped a great deal in establishing it. Very few of the cases reported in literature were operated upon primarily for a condition actually found at the operation. Our case is another case of one-stage resection as recommended by Trimble, Parsons and Sherman and also Whipple. The entire procedure was carried out in two hours and forty-five minutes, but considerable time was lost in breaking down adhesions from the previous operation, and the previously established cholecysto-duodenostomy.

CONCLUSIONS

(1) Cancer of the papilla of Vater is a very rare condition.

(2) Correct pre-operative diagnosis can be established and, in our experience, abdomnoscopy had been of value.

(3) In doubtful cases, exploration should be done and duodenostomy is imperative.

(4) One-stage resection should be done if possible at all and, if impossible, two-stage procedure should be taken into consideration. Trans-duodenal resection is inadequate.

This case and the discussion of it was presented with the point in view to encourage radical surgical procedure in cases which were considered hopeless until recently.

References omitted because of lack of space, will appear in reprints.

Under What Indications Should Serological Tests for Syphilis When Positive Be Repeated By Several Techniques Including Complement Fixation and Flocculation At Least One of Which Is Quantitatively Titered In Order To Evaluate Whether a Positive Serum Reaction Is True or False?

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ALTHOUGH standard diagnostic flocculation and complement fixation tests for syphilis are highly specific, they occasionally do give false positive reactions for some technical or biological reason. Because of the seriousness of the positive test, a single report should never be accepted as indubitable evidence of the disease. In all cases except those in which the spirochetes *pallidum* have been demonstrated, the test or tests should be repeated and the clinical investigation extended.

To rule out nonspecific reactions of a technical nature care should be taken:

(1) that the tests are performed by a well trained and experienced technologist in a properly supervised laboratory,

(2) that the technic of the test or tests is performed exactly as outlined by the author serologist. (In this connection, it is also important that the technologist be informed of the author's most recent modifications. Too frequently, minute details of technic are not given by the author serologist or not known by the medical technologist.) An insufficiently emphasized technical detail of blood testing for syphilis is that the tests should be done at a room temperature of not less than 21°C. (70°F.) because certain antigens containing adventitious tissue extract material give nonspecific reactions in tests at low room temperature but not at 21°C. (70°F.) and higher,

(3) that the antigens and other ingredients for the tests are of standard quality.

The principal cause of technical false positive reactions in tests for syphilis is the presence of adventitious material in the antigens employed.¹ Many false positive reactions reported to be of biological type, especially those done at low room temperature, were in all probability, technical false positives due to adventitious material in the antigen and not to something unusual in the tested serum.

Studies to further purify antigens and to isolate the most potent and most specific substance, when successful, will result in greatly lessen-

ing the number of false positive reactions in tests for syphilis.

More disturbing than false positive reactions due to some technical fault, are the biological false positive reactions. These occur, according to Moore, Eagle and Mohr² "in yaws (100 per cent), leprosy (from 40 to 80 per cent), malaria (100 per cent at some time during the infection) and infectious mononucleosis (about 20 per cent)". Occasional biologic false positive reactions have also been reported following vaccination (vaccinia),³ in pulmonary and upper respiratory infections⁴ and less frequently in a variety of diseases, conditions and even in normal individuals.⁵ In addition to standard diagnostic flocculation and complement fixation tests of maximum specificity and satisfactory sensitivity, new flocculation tests with maximum sensitivity and satisfactory specificity are in general use (Exclusion Slide test, Hinton test, Mazzini test and Kahn Presumptive test). The nonspecific reactions due to technical and biological causes are more numerous in these tests than in the diagnostic tests. These very sensitive tests, however, also react with a very small quantity of syphilitic reagin and give decidedly more numerous true positive tests for syphilis than do the diagnostic tests and so are of much greater value in the early detection of syphilis and in the control of its adequate treatment than are the diagnostic tests.

In all cases of biological false positive reaction (yaws and leprosy excepted) not receiving treatment for syphilis, repeated standard blood tests by various methods in one or more reliable laboratories almost invariably show a comparatively rapid reversal to negative and quantitative determinations of the reacting units in such sera during the positive phase usually show titers much lower than those of the sera of syphilitics.

In clinically negative or doubtful cases giving one or more possibly false positive tests for syphilis Moore, Eagle and Mohr² advocate the following studies:

1. History: (a) intercurrent infection (b) serum treatment (c) vaccination (vaccinia) within 4 months.

2. Physical Examination: (a) lymph nodes, spleen for infectious mononucleosis (b) respiratory tract for infections.
3. Blood Smears for: (a) malaria (b) infectious mononucleosis.
4. Heterophile Antibody. (May last 5 months in infectious mononucleosis.)
5. Sedimentation Rate. (Great increase with fall to normal in acute infections; less increase, less fall in syphilis.)
6. Repeat S.T.S. Several techniques.
7. Quantitative S.T.S.
8. Repeat S.T.S. Several laboratories.
9. Kahn "Verification" Test.
10. S.T.S. Spirochetal antigen.
11. S.T.S. Non-specific Antigens for General Reactors: (a) bacterial (gonococcus, staphylococcus, tubercle bacillus) (b) milk (c) lecithin, etc.
12. Serologic follow-up (quantitative).
13. Examine family and contacts.
14. cerebrospinal fluid examination.
(S.T.S.: Serum test or tests for syphilis)

In addition to the 14 studies outlined by Moore, Eagle and Mohr, another indicated study is that of the blood proteins as pointed out by Cardon, Atlas, et al⁶ who reported false positive tests for syphilis in 8 of 34 cases of hyperproteinemia associated with a variety of conditions.

Perhaps the most important of all the procedures outlined, is the repeated testing of the blood by various standard diagnostic flocculation tests, the more sensitive flocculation tests, a standard diagnostic complement fixation test and, if the reactions are strongly positive, by a quantitative flocculation test. Repeated positive reactions in one or more of the standard tests with reacting substance increasing rapidly in titer, indicate the probability of early syphilitic infection. Repeated positive reactions with no great variation in titer of reacting substance

likewise indicate the probability of syphilis. Discrepant and fluctuating test results with rapid reversal to negative, however, especially in the more sensitive flocculation tests, indicate the probability of the absence of syphilis and that the positive reactions were due to some technical or biological factor. Furthermore, as stated above, the titers in nonsyphilitic cases tend to be lower than in syphilitic cases.

Studies relating to the isolation of the most potent and most specific substance in antigens and studies relating to the nature of syphilitic reagin on the one hand and of the probably chemically different reacting substances in the blood in cases of leprosy, malaria, infectious mononucleosis, etc. on the other, may some day lead to the development of procedures that will greatly aid in differentiating a truly positive reaction for syphilis from a false one.

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Main Indications for Use of Various Forms of Plasma and Blood

Clinical Condition	Indication
1. Primary shock (neurogenic)	No indication for plasma or whole blood.
2. Secondary shock (hematogenic)	Plasma (diluted plasma ineffective in severe or late shock).
3. Burns	Plasma; whole blood or erythrocyte concentrate contraindicated.
4. Severe hemorrhage with or without shock	Plasma for immediate emergency, followed by erythrocyte concentrate or whole blood.
5. Infections	Fresh or frozen plasma to supply immune bodies; if severe anemia: whole blood.
6. Intestinal obstruction	Plasma.
7. Pre- or post-operative hypoproteinemia	Plasma.
8. Nephritis with edema	Plasma.
9. Cerebral edema	Concentrated plasma.
10. Nephrosis with albuminuria	Concentrated plasma. (?)
11. Anemias	Erythrocyte concentrate or whole blood.
12. Blood dyscrasias with hemolytic syndromes, low prothrombin, etc.	Fresh or frozen plasma or fresh whole blood.
13. Acute poisonings affecting oxygen-carrying capacity (e.g. carbon monoxide)	Whole blood.

—Leon L. Blum, M.D., Terre Haute, Ind.; *Jour. Ind. S.M.A.*, Vol. 36, No. 4, April, 1943.

An Approach to Syphilis in Industry

EARLE GEORGE BAXTER, M.D.

ROUTINE serologic testing for syphilis has become commonplace in industries. Most plants that did not do this type of testing previously, began by doing serologic tests on new employees as they entered the plant each day. This project is felt to be vital in the interest of the national campaign, but it was thought to be not quite enough for one particularly large industry. At a period when few new employees were being added, a campaign began whereby serologic tests for syphilis were done on the employees of the plant as a whole, and then followed quickly by the testing of each new employee. Insofar as practically no references can be found in the literature regarding the method, problems and management of this type of project, excluding new employees, it is thought that the results would be of extreme interest to not only industrial physicians, but physicians in general.

Mass serologic tests for syphilis were done on 5,585 employees in an attempt to ready the industry for continuous syphilis investigation in the following manner: After the various departmental heads were duly notified, and full cooperation was offered, an hour and a half a day was allotted to the taking of specimens. The particular department or departments were contacted within a reasonable length of time and were asked to send approximately 100-150 employees to the Medical Department at a specified time. In accordance with the plant routine, these employees were asked to bring a card indicating their name, clock number, age, and color. Approximately six dozen sterile syringes and 100 twenty-gauge needles were in readiness as well as an abundance of specimen tubes. The patient was asked to sit down opposite the doctor at an examination table, bare the antecubital fossa of his choice, squeeze the upper arm and close his fist tightly. The manual tourniquet was found to greatly increase the speed of testing and also divert the patient's attention. The specimen tubes and cards were handled by a nurse obtained through the cooperation of the City Public Health Department. As a result there were remarkably few cases of syncope and the rate of testing was 30 seconds per man.

All specimens were sent to private laboratories in the city and paid for by funds from the employees Health and Benefit Association. All serological results were returned on 3"x5" type-written cards which were found easiest to file

The Author

• Dr Baxter, Norwood, Ohio, is a graduate of the University of Cincinnati School of Medicine, 1940; member Phi Chi Fraternity; affiliated with The Cincinnati Milling Machine Co. and Cincinnati Public Health Department.

for future reference. The negative results were stamped as such in the permanent individual records in the Medical Department. Those with positive tests were marked with a red star and filed in the same records. City or state laboratories might have been used for testing and this privilege is now being utilized for new employees' serologies.

The positive serology of the employee is kept in the strictest confidence of the employee, the company physician, and the employee's family physician. The employee with a positive serology was called to the Medical Department and told:

1. That his blood test showed a positive reaction indicating that he may have syphilis.
2. That there is always a possibility of an error and so a second test will be made immediately (by the plant physician).
3. That he must return to the Medical Department in three days to learn the results of the second test (this excludes those cases who have a history of previous treatment and such cases were asked to see their own physician immediately to complete diagnosis).
4. That if the second test should differ from the first, then a third test will be made for further checking.
5. That if two positive serologies are found in this series, then an additional special physical examination should be made by the family physician.
6. That if he is not in the primary or secondary stage this disease will not interfere with his employment provided he takes satisfactory treatment when indicated.

Other than the actual blood testing, the "follow-up" is felt to be of greatest importance. Everything is for naught if the patient does not receive the proper therapy over a sufficient period of time, and this responsibility is rightly placed in the hands of the plant physician. He can manage the "follow-up".

1. By advising the syphilitic employee, diagnosed as such by his family physician, that he must continue treatment under his own physician's instructions in order to retain his job, and
2. By insisting upon a statement from the outside doctor showing treatment, progress, and dismissal of patient.

The following case reports serve to show a few of the more serious problems and ramifications encountered.

Case No. 1. A 35 year old white male, after two serologies were found positive, was sent to his family physician. He was extremely irregular in taking therapy as a late latent syphilis patient. During a period of five months he was consulted several times by the industrial physician and repeatedly advised to take continuous therapy. Finally, he was threatened with the loss of his job if he did not take treatment as directed. He immediately found fault with the industry, his job, and the Medical Department, and at the same time expressed the belief that he was not syphilitic. At a round table discussion the plant superintendent and the industrial physician discussed and attempted to iron out the difficulties with the patient. He said he would take a physical examination with a serology test at the local Army post. Two days later he quit.

Case No. 2. A 22 year old white male, after one positive serology test, was sent to his family physician who found, in a period of two weeks, three negative serologies. This man insisted upon and received payment from the company for the last three blood tests taken.

Case No. 3. A 23 year old white male was sent to his physician after one positive serology. The physician obtained a negative recheck. One month later the industrial physician also found his serology test negative. This man also received a refund for his private physician's services.

Case No. 4. A 19 year old white female was consulted by the industrial physician concerning her positive serology. She was advised to see a physician of her choice for a recheck. This patient, like three other women new employees, left the company employment the same day.

Case No. 5. A 51 year old white male had a positive serology at the plant and a negative serology by his own physician, who then advised the patient to visit a Red Cross Blood Bank to receive another test. After a few weeks the patient, not receiving a reply from the Red Cross, returned to the industrial physician who found at this time a negative serology. One week later, he received a letter from the Red Cross advising him to see his family physician regarding his serology.

Case No. 6. A 33 year old white female had a positive serology and gave a history of insufficient syphilitic therapy six months previous. Her treatment began after a liver gumma was discovered at the operating table. The physician who claimed treating the patient stated that treatment was not continued due to lack of superficial arm veins. The patient is now taking treatment from a syphilologist.

Case No. 7. A 32 year old colored male was sent to his own physician for recheck of a positive serology and treatment if indicated. After several intravenous injections of neo-arsphenamine he developed severe drug cellulitis of the right antecubital fossa. This was treated with wet compresses and later tincture of merthiolate cotton applicators for eight weeks, during which time the patient was unable to work. He was very reluctant to resume therapy.

Case No. 8. An apparently vigorous healthy 44 year old white male was advised to see his physician after a positive serology was found. The physician's recheck was also positive. Before therapy was begun, the patient complained of constant fatigue, severe depression, and irritability. After several weeks of treatment, the patient did not respond. The industrial physician discussed with the attending physician the possibilities of a central nervous system involvement and indications for a lumbar puncture. The attending physician, in good faith, said he intended doing this at a later date and subsequently advised the patient to take a two weeks vacation. Following the vacation, the patient consulted the industrial physician and asked that something be done for his above stated symptoms. The company went to the expense of dental, chest, and abdominal X-rays—all of which were negative.

Case No. 9. A 41 year old colored male had a positive serology at the industry. He gave a history of having received both arm and hip shots for six months one year previous and was released by his physician. He was referred back to the same physician for a recheck serology and judgment of his case. The serology was found to be negative and the patient dismissed. Four months later, he complained to the industrial physician of pain in his right arm, entire right side of his thorax, and of a large pulsating mass in the right supraclavicular fossa. The patient was found to have a syphilitic aneurysm. He is now taking antiluetic therapy and the aneurysm has decreased to approximately one-half its original size. The patient is able to do all average day's work in a foundry.

Case No. 10. A 58 year old white male, on two consecutive occasions, was found to have a positive serology. After a recheck by his family physician, the patient did not return for treatment. The industrial physician was advised by the attending physician that he did not know the patient and was unaware of the fact that he should treat him. The patient did not return for treatment as advised; and, a few weeks later, a son consulted the industrial physician and reported that his father was having delusions of grandeur and working sporadically. The patient was again advised to see a physician of his choice and have a spinal puncture and treatment as indicated. A few days later he was dismissed from the plant for repeatedly smoking in a prohibited area and for being excessively verbose while working. On follow-up of this case, it was found that the patient was receiving therapy and improving.

Case No. 11. A 33 year old white male was found to have a positive serology. The family physician found a negative recheck serology. A second serology at the plant proved to be positive. The family doctor told the industrial physician that he had known the patient since childhood, that he has a negative syphilitic history, and that treatment was not indicated.

COMMENT

In summing up statistics, nothing particularly new or significant was discovered relative to the incidence of syphilis in industry. Its proportions admittedly high, gave added incentive to continue with all speed.

The task of dealing with those positive serologic cases is no small job, and takes a great deal of firmness and patience. It must be done with a minimum of help due to the confidence involved between physician and employee. As the volume of positive and negative cards increase in number they are handled in the usual routine office method, but nevertheless require a great deal of time.

The attitude of the employees as a whole toward this type of campaign is of the best. Ninety-eight per cent of the employees submitted to the test, and a remarkably few asked questions pertaining to the technique and possibilities of error. The word syphilis, apparently so distasteful to the average laymen, was avoided if at all possible. It was strongly used, however, when necessary. No false ideas were allowed to enter the minds of the employees during any conversation.

The methods of investigation were changed in some instances as the various problems presented themselves. It was at first thought practical to have the second, possibly third serologic test done by the family physician. When several cases returned after having negative findings by their family physician and wished remuneration for their time and trouble, it was thought advisable to do all rechecks in the industry.

The attitude among the women found to have a positive test for syphilis gives added emphasis to the need of more education of the public concerning venereal diseases.

One of the most impressive findings was the apparent reluctance on the part of the family physicians to thoroughly study the cases referred to them. Only one private physician out of the large number involved submitted a detailed report of the physical examination, blood and spinal fluid findings of the cases referred to him. It appeared that anti-syphilitic therapy was instituted in the majority of cases with nothing more than a brief history and two positive serologic tests, and in some instances, early in the campaign, a recheck serologic test was not done.

In keeping with the nation-wide ratio, the largest percentage of cases with positive serologic tests, according to the industrial physician's impression, were of the late latent type. Approximately 5 per cent of these had spinal fluid tests. Under the circumstances, it is felt that the remainder of these cases are under treatment without being fully diagnosed, and irreparable damage is potential. All latent syphilis patients should have a spinal fluid Wasserman or gold-curve before arsenicals are used.

At the time of consultation of each case prior to his being referred to his family physician, the employee is told that he needs anti-syphilitic treatment for his own good. If this does not

impress him he is told that he must consider the welfare of his family, and, beyond this, in consideration of the safety of the plant employees. Medical science, in this instance is considerably handicapped, because it cannot show these patients their fellow employees, one with a syphilitic aneurysm, another with paresis, and so forth.

Great variations in anti-syphilitic therapy were observed. One patient was treated with bismuth just long enough for a supposed penile chancre to

	Number Tested	Number Positive	Percentage
W. Male	4651	36	0.8%
W. Female	168	1	0.6%
C. Male	765	68	8.8%
Total	5585	105	1.8%

disappear. Another was given a month's rest period after eight shots of bismuth, still another a two months' rest period after twelve hip shots of bismuth. A patient was dismissed when found to have a negative blood serology after six months therapy. Another patient received no anti-syphilitic therapy; his family physician disregarding all clinical evidence. The treatment of one syphilitic patient was discontinued because her doctor could not find any superficial veins. Some patients are being treated intensively and others conservatively for the same stages of the disease.

CONCLUSIONS AND RESULTS

1. The job at hand is mass blood serological testing for syphilis. Beginning the task of testing only new employees is not enough, and permits evasion by many employees. Mass serology tests should be done at least annually.
2. Perhaps a more detailed clinical investigation could be done by the industrial physician before referral, thus reducing both time and expense for the patient and his physician.
3. The use of the manual tourniquet for the taking of blood samples was found to be definitely advantageous.
4. It is felt that more education concerning venereal diseases could be practiced in the industries. But it must be of a high type.
5. More emphasis should be placed on the fact that the various public health clinics are at the disposal of patients with low income.
6. Perhaps a more or less standard method of treatment can be instituted for the various stages of syphilis.
7. We must have patience with the various fallible methods of testing the blood serology, and treat rather than dismiss questionable cases.
8. We must endeavor to maintain a close relationship between industrial and non-industrial physicians.

Massive Fatal Hemorrhage From Acute Ulcer at Cardio-Esophageal Junction*

THOMAS C. LAIPPLY, M.D.

ON an admission two months previously, for dermatitis venenata, from which he recovered fully, this white male, aged 60 years, showed no indication of other disease except that his blood pressure was 185/105 mm. Hg. Without any past history of gastro-intestinal disturbance, he stated that he had noticed loss of appetite and nausea three days before his present admission. Twenty-four hours prior to admission he suffered severe non-radiating epigastric pain and almost immediately vomited about a quart of bright red blood. Although not a chronic alcoholic, he had drunk a good deal of liquor during the preceding week.

On admission, his temperature was 37.7° C., pulse 108, respiratory rate 22, and blood pressure 108/60. He was a normally developed, well nourished, white male appearing acutely ill. There was marked pallor of skin and mucous membranes. The skin was cold, clammy and covered with perspiration. A small amount of clotted blood was present in the naso-pharynx. The abdomen was slightly rigid and pressure in the epigastrium caused nausea. There was no tenderness and there were no organs or masses palpable in the abdomen. Examination of the blood showed 3.81 million erythrocytes, 72 per cent hemoglobin and 14,150 white blood cells. The stool was tarry and gave a strongly positive guaiac test.

A clinical diagnosis of bleeding peptic ulcer was made and the patient given two transfusions of citrated whole blood, totalling 1200 cc. These maintained his blood pressure and pulse rate at admission levels, but he continued to vomit bright red blood and to have tarry stools. The red blood count decreased to 2.85 million and the hemoglobin to 60 per cent. After 32 hours of apparently unsuccessful conservative treatment a laparotomy was performed. At operation palpation revealed no lesion in the stomach or intestine. The distal portion of the stomach was resected and a posterior gastro-jejunostomy was done. During and for a short time after the operation the blood pressure was maintained at the previous level by the administration of a total of 1200 cc. of citrated whole blood. Careful examination of the resected portion of the stomach revealed slight chronic inflammation but no ulcer or bleeding point. After the operation, bleeding continued, the blood pressure gradually fell to 80/40 and the pulse rate increased to 128. The patient died three hours after the operation and approximately five days after the onset of gastro-intestinal symptoms.

At autopsy (8040, by Dr. J. C. Sherrick) there was an acute ulcer at the cardio-esophageal junction and a large amount of clotted blood in nose, mouth, bronchi and throughout the gastro-intestinal tract. An eroded artery at the base of the ulcer accounted for the hemorrhage. The

ulcer was in the posterior part of the junction, long, narrow, moderately deep, with somewhat undermined edges. Its vertical diameter was 25 mm., about 20 mm. in the stomach and 5 mm. in the esophagus. It was 6 mm. wide and 3 mm. deep. Neither grossly nor microscopically was there any fibrosis. Sections showed that the ulcer had not penetrated into the mucosa, but in all coats there was a fairly rich exudate made up largely of polymorphonuclear leucocytes. There was slight chronic hypertrophic gastritis. There was subacute esophagitis with a leukoplakia that extended from cardia to upper third. At about the middle of the esophagus there were several shallow ulcers, 2 to 3 mm. in diameter. Other diagnoses included bilateral bronchopneumonia, acute hyperplasia of spleen, generalized arterial and arteriolar sclerosis, arterial and arteriolar nephrosclerosis, hypertrophy and chronic inflammation of urinary bladder, glandular hyperplasia of prostate with acute and chronic inflammation.

Abrupt onset of vomiting of bright red blood from the gastro-intestinal tract may be due to several causes. Allen¹ reported 231 such cases and found duodenal ulcer in 94, gastric carcinoma in 45, gastric ulcer in 42, esophageal varices in 37, gastrojejunal ulcer in 8, leiomyosarcoma in 3, and hypertrophic gastritis in 2. It is well known that even when the eroded vessel in a duodenal ulcer is distal to the pyloric fold most of the blood may be vomited.

Several cases of fatal hemorrhage from ulcers in the region of the cardio-esophageal junction are reported by Mallory and Weiss.² Most of the patients had been on protracted alcoholic debauches and all had had persistent retching and vomiting. It was concluded that the pressure changes which occurred in the stomach during vomiting and the regurgitation of gastric juice over the mucosa of the cardiac portion of the stomach are the most important factors in the production of the lacerations. Local irritation by alcohol was thought to be a possible predisposing factor.

In the present case, the history and physical examination excluded carcinoma, esophageal varices and gastrojejunal ulcer. Since there was neither retching nor persistent vomiting, the ulcerations described by Weiss and Mallory were not acceptable as a cause. When conservative treatment proved unsuccessful, the distal part of the stomach was resected in the hope of removing a bleeding point. This is in keeping with the suggestion of Allen¹. In patients more than 50 years old, the mortality rate of bleeding duodenal ulcer increases from 1 per cent to 33.3 per cent. Thus early operation is recommended

*Selected by H. T. Karsner, M.D., from the Clinico-Pathological Conferences at the Institute of Pathology, Western Reserve University and University Hospitals, as the fifteenth of a series of cases to be published under the heading of "Case Records Presenting Clinical Problems."

and unless there are definite contraindications, operation should not be delayed more than 48 hours. In cases where the bleeding point is not found in pyloric portion of stomach or in duodenum, the proximal part of the stomach should be inspected.

Although the autopsy explained the hemorrhage, a positive explanation of the cause of the ulcer was not furnished. Indicative of its origin in the esophagus with extension into the stomach are the facts (1) that there was ulcerative esophagitis elsewhere in that tube, (2) the fact that 17 per cent of esophageal ulcers extend into the stomach (Hauser³) and (3) that the gastritis, which Konjetzny⁴ assumes to predispose to gastric ulcer, was of only slight degree.

SUMMARY

This case is one of a 60 year old white male with sudden hematemesis without previous gastrointestinal symptoms. In the hope of removing an unidentified bleeding point, the lower half of the stomach was resected. This was unsuccessful, bleeding continued and the patient died. Autopsy revealed an acute ulcer at the cardio-esophageal junction. In its base was an eroded artery. The facts brought forth favor, but do not prove, the view that the ulcer was primarily esophageal with extension into cardiac portion of the stomach. In the presence of obscure hematemesis or hemorrhage from the upper gastrointestinal tract, lesions of the cardio-esophageal junction should be considered. In such cases when surgical intervention is deemed advisable, the procedure should be one which allows careful examination of this part of the gastrointestinal tract.

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Problems of Chemotherapy in Gonorrhea

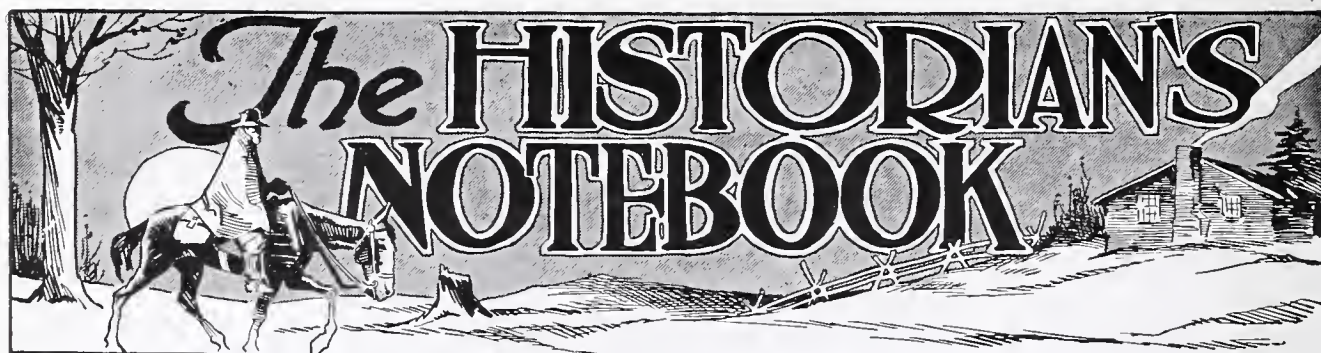
There are several types of failure of chemotherapy in gonorrhea. One outstanding group is that of local complications along the urinary tract, such as (1) para-urethral sinusitis, (2) parafrenal fistula, (3) chronic folliculitis, (4) Cowperitis, (5) stricture and (6) prostatitis. Procedures must be instituted to establish drainage, preferably after sulfathiazole has been administered during a previous period of twenty-four hours, to avoid further extension of the infection by the chosen manipulation.—Russel D. Herrold, M.D., Chicago; *Jour., Mich. S.M.S.*, Vol. 42, No. 3, March, 1943.

Feline Influenza in Man

Recently several clinicians have reported a possible epidemiologic connection between certain atypical pneumonias in man and a respiratory tract infection of cats, variously designated as nasal catarrh, influenza or distemper. Evidence that these two diseases are due to the same virus is currently reported by Baker of the Rockefeller Institute. Suspensions of lungs from cats showing typical influenza symptoms with pneumonia were inoculated intranasally into mice. The mice became sick in the first passage, and many of them died in from three to five days. Necropsy showed a definite pneumonia with more than half the lung involved. Mouse-to-mouse serial passage increased the virulence of the infectious agent to a point where death occurred in two to three days, following intranasal inoculation. Control tests from normal cats and uninoculated mice were invariably negative.

Cultures from the lungs of naturally infected cats and of artificially infected mice showed few bacteria and were frequently negative. The infective agent, transferred to the yolk sac of five-day incubated eggs, usually killed the embryo in from two to three days. When suspensions of the inoculated yolk sac membranes were given intranasally to normal kittens a typical disease was produced, which was readily transferred by contact to other kittens. All attempts failed to demonstrate a cultivable bacterium from the yolk sac, suggesting that the infectious agent is presumably a virus. Attempts to pass the agent through Berkfeld filters gave irregular results. Sections of the yolk sac membranes and smears from lungs of infected mice revealed numerous elementary bodies similar to those of psittacosis. High speed centrifugation concentrated much of the infectious agent in the sediment, suggestive evidence that the observed elementary bodies are carriers of the etiological agent.

Compliment fixation tests were made using this concentrate as antigen. Sera obtained from cats before infection failed to fix complement with this antigen. Convalescent cat serums, however, gave strongly positive reactions. Serums drawn from man during the acute and convalescent stages of the atypical pneumonia also fixed complement in relatively high dilution. Most control normal human serums were negative or gave relatively low positive reactions. From this evidence Baker concludes that the respiratory disease in cats is due to a virus that forms elementary bodies and that this virus is the same as (or is closely related to) the one causing some of the so-called atypical pneumonias in man. Further work is in progress.—W. H. Manwaring, M.D., Cal. and W. Med., Vol. 58, No. 3, March, 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., Cincinnati, Ohio

(Continued from April issue)

IN the Presidential Address at the meeting at Put-in-Bay in June, 1893, Dudley W. Allen of Cleveland, made the statement that the first medical society of Ohio met at Zanesville, January 14, 1811. He gave the following as a few interesting extracts from the early Laws of Ohio: "The practice of physic and surgery is a science so immediately interesting to society that every encouragement to its promotion should be given, and every abuse of it, as far as possible, should be suppressed. No person could receive a certificate who had not studied three or four years under some able physician or surgeon, or could present a certificate from some medical society, showing his knowledge of anatomy, surgery, materia-medica, chemistry and theory and practice of physic".

Dr. F. W. Langdon of Cincinnati, reported the removal of a melano-sarcoma the size of a silver quarter from the sole of the foot of a 69 year old man. With an elliptical incision down to the plantar fascia the growth was excised and the wound closed without suppuration. A microscopic examination was concurred in by Drs. Joseph Eichberg and Oliver P. Holt. Dr. Langdon said he had seen two other cases, one reported in 1881 by Dr. W. N. Falls and the third operated upon by Dr. W. H. Taylor.

The introduction to a paper on "Rectal Stricture of Puerperal Origin"—by N. Stone Scott of Cleveland, is interesting as showing the assumed humility of those who addressed a formal gathering of doctors some 50 years ago. To quote, "It is with considerable trepidation that I offer to this society, the elite of the medical profession of this great State of Ohio . . . before whom

I ought to stand dumb, a new classification of rectal stricture". This had been called "grippe of the bowels". The patient's trouble started a few days after the fourth delivery. At operation the uterus was found drawn to the left; the rectum was adherent and dipped down into the pelvis to the right of the uterus. A puerperal origin for stricture of the rectum was very rare at the time of the above referred to paper.

From the number of papers given before the Ohio State meeting in 1893 on the subject of chest infusions one may draw the opinion that the leading doctors were beginning to appreciate the danger involved and the advisability of tapping, aspiration or rib resection. The authors on these subjects were Joseph Ransohoff of Cincinnati, S. F. Forbes of Toledo, T. H. Sabin of Warren, J. C. Martin of Findlay.

ARTICLES ON LEG AMPUTATION

Two articles on amputation below the knee were given by A. Rhu of Marion, and F. E. Bunts of Cleveland, and they discussed the shape of the stump—its being of sufficient length to provide leverage on the artificial limb; the need for its having proper blood circulation was emphasized as very important. The bone should be well rounded and smoothed off on its anterior edge; the ideal point for amputation was stressed as at the junction of the lower and middle third. Not all who pretended to be antiseptic surgeons were such in fact, because they had not yet learned to be surgically clean.

Dr. Bunts gave five reasons for leg amputation: first, any foot injury so severe as to permit only of a Pirogoff, Symes or Chopart amputation; second, tuberculosis of the tarsal bones ex-

cept in young children; third, following extensive burns or wounds of the soft parts leaving the bone with extensive and tender cicatrix; fourth, senile gangrene of the toe or foot; fifth, shock dependent upon a severe injury to the leg if reaction does not take place in a short time.

At this January, 1893, meeting at Cleveland of The Erie Railway Surgeons, Dr. Rhu quoted the statement made by a most experienced New York surgeon that in 30 years experience he had never seen an amputation wound heal by primary union, and he did not think it was possible.

The subject of "Operative Treatment of Extra-Uterine Pregnancy" was covered by Rufus B. Hall of Cincinnati, and Marcus Rosenwasser of Cleveland. Both gave excellent papers and their main difference in feeling against early operation, as compared with today, is the change in attitude brought about by the modern aseptic operation as compared with the dangers of the antiseptic operation of fifty years ago.

THE FORTY-NINTH ANNUAL SESSION

The forty-ninth annual session of the Ohio State Medical Society was held in Zanesville in May, 1894, Dr. N. P. Dandridge of Cincinnati, being president. Many illuminating papers were read of which reference can be made to only a few in this short report on early surgery of Ohio.

William D. Hamilton of Columbus, reported a case of cirroid aneurism with ligature of the common carotid artery in a boy of 19 years of age, who when admitted to the hospital, had a pulsating tumor on the right side of his head and face of purplish color and lobulated shape. Pressure over the right common carotid stopped the pulsations. After much consideration of the many ways to attack this mass, it was decided to tie the common carotid artery. After the routine preparation and under ether anesthetic the artery was tied with No. 10 silk. Pulsation stopped at once and the wound was closed. The patient was discharged in about three weeks with the tumor much diminished in size and no sign of recurrence when last seen by his doctor.

Dr. M. Stamm of Fremont, described an interesting and in some ways new method of doing a gastrotomy which he had tested out on a dog but he does not indicate that he had tried it on a human at the date of his article in May, 1894.

The patient, Dr. J. C. Oliver of Cincinnati, reported on, had been injured some fourteen months before by falling about twenty feet from a tree. Paraplegia resulted and involved the bladder and rectum with no control of urine or stool. Operation was decided upon and Dr. Oliver, assisted by Drs. Freeman, Mussey, Mc-Millan and Gormuly, removed the seventh, eighth

and ninth dorsal arches. The seventh was found dislocated and the cord "disorganized". The only benefit to the patient from the operation was that he had better control of his bowels and sometimes he had urinary control as long as four or five hours. Dr. Oliver concluded from this case that one can not tell the exact condition present without operation so the doctor should early attempt to relieve the pressure on the cord in all similar cases.

Splenectomy was so rare a procedure in the late 19th century that the report of a successful operation by Dr. W. J. Conklin of Dayton, created so much surprise that there was very little discussion at the Zanesville meeting. The patient was 29 years old and had two children. Dr. Jewett operated upon her finding the spleen twice its normal size; a medium sized right ovarian cyst was removed at this operation in June, 1893, with a normal convalescence. In September, 1893, she was brought to the hospital because of severe abdominal pain and vomiting of large quantities of bile. She had a large immovable abdominal tumor filling the left side of the abdomen from the pelvis to the ribs. Her temperature was from 99 to 101 during ten days observation. In October the abdomen was opened again and a large adherent spleen was removed which weighed four and one-quarter pounds after all blood was drained away. Seven months later the patient was in excellent health except for an overpowering desire to sleep.

F. C. Larimore of Mt. Vernon, added five more radical hernia cures to his list previously reported making ten in all; nine of which were strangulated and one irreducible. Of this last five one had a relapse in one year, two died and two were cured.

REMOVAL OF ADHERENT APPENDIX

The 1895 Ohio State Medical Society meeting was in Columbus in May with Dr. Dan Millikin of Hamilton as President. Dr. C. S. Hamilton of Columbus, reported on what was probably a new way of handling an adherent appendix needing removal, that is, by enucleation. He stated those patients who have had frequent attacks of appendicitis, in all probability will be found to have the appendix very adherent or buried in adhesions. To prevent injury to the perhaps important adherent organs the author suggested making an incision through the entire length of the peritoneal investment of the appendix. The peritoneum should then be stripped back as far as possible and the appendix lifted from its bed by a process of enucleation until the cecum was reached. After ligation, the peritoneum was sutured over the stump and the wound was closed in the usual way.

(Concluded in June Issue)

The President-Elect

WHEN the House of Delegates of the Ohio State Medical Association at the recent Ninety-Seventh Annual Meeting of the Association in Columbus elected Dr. L. Howard Schriver, Cincinnati, to the office of President-Elect, it followed a long-standing precedent of selecting for the Association's highest office, which Dr. Schriver will take next year, a man who, from the standpoint of personality, ability and experience, is thoroughly qualified for such position.

Born March 1, 1889, at Newport, Kentucky, Dr. Schriver received his early education in the Newport public schools and his premedical and medical education at the University of Cincinnati, graduating from the College of Medicine there in 1910. After interning at Christ Hospital, Cincinnati, and serving a surgical residency at the Cincinnati General Hospital, he entered private practice in Cincinnati in 1913.

During World War No. 1, Dr. Schriver served as a medical officer with Base Hospital No. 25 and was on active duty overseas from June, 1918 to May, 1919, resuming active practice in Cincinnati after being mustered out of the service.

Dr. Schriver has rendered outstanding service in the Cincinnati Academy of Medicine and the Ohio State Medical Association. After serving as Secretary and a member of the Board of Trustees of the Cincinnati Academy, he was its President in 1930-31. Several years later he was appointed a member of the Committee on Public Relations and Economics of the Ohio State Medical Association and in 1938 was elected a member of The Council, representing the First Councilor District, an office which he held at the time of his elevation to the office of President-Elect.

Associated with the faculty of the University of Cincinnati College of Medicine continuously since 1914, Dr. Schriver at present is Associate Professor of Clinical Surgery. He is a member of the attending staffs of the Jewish, Christ and Children's hospitals, Cincinnati, and is a diplomate of the American Board of Surgery and a fellow of the American Medical Association.

For years Dr. Schriver has been recognized as a leader in medical, public health and civic activities in Cincinnati. He is a member of the Cincinnati Public Health Federation, having served as president of the Federation for two terms. At present he is Chief of Emergency Medical Service, Hamilton County Civilian Defense Council, and a member of the Cincinnati Metropolitan Area Civilian Defense Staff. Dr. Schriver is an active member of the Torch Club and the Lions Club. He is an enthusiastic boatman, having been for the past two years commodore of the Cincinnati Gymnasium Boat Club. His 55-foot cruiser can be seen on the Beautiful Ohio during the boating season. Moreover, he is an ardent fisherman and hunter and a travel fan, having journeyed extensively throughout the Americas, North, Central and South.

Dr. and Mrs. Schriver and their two children, Dr. Howard M. Schriver, 25, a recent graduate from the University of Cincinnati College of Medicine, and Joanne Lee, 18, reside at Burton Woods Lane.

The leadership of the Ohio State Medical Association in 1944 will be in the hands of another gentleman and scholar, an outstanding physician and a man with the courage of his convictions, an adherent of sound principles and experienced in meeting the important duties which the office of President entails.

Official Proceedings of the House of Delegates, Ohio State Medical Association, 97th Annual Meeting, Columbus, March 30-31, 1943

MINUTES OF THE FIRST SESSION

THE 97th Annual Meeting of the Ohio State Medical Association was officially opened Tuesday, March 30, 1943, at 4 P.M., with a meeting of the House of Delegates in the Junior Ballroom, Neil House, Columbus. The House of Delegates was called to order by President McCormick and the roll call showed 102 delegates present.

On motion by J. Craig Bowman, Wyandot County, seconded by George T. Harding, Franklin County and carried, the minutes of the meetings of the House of Delegates held on April 28 and 29, 1942, were approved.

REFERENCE COMMITTEES

President McCormick then announced the appointment of the following Reference Committees:

Resolutions—E. O. Swartz, Cincinnati, chairman; G. A. Woodhouse, Pleasant Hill; J. Craig Bowman, Upper Sandusky; C. E. Hufford, Toledo; D. S. Spreng, Cleveland; J. Edwin Purdy, Canton; Jay W. Calhoon, Uhrichsville; Claude V. Davis, Pennsville; I. P. Seiler, Piketon; Charles W. Pavey, Columbus; John S. Hattery, Mansfield.

Annual Reports—Chas. T. Atkinson, Middletown, chairman; Paul H. Beaver, Leetonia; A. W. Carley, Dayton; J. N. McCann, Youngstown; J. G. McNamara, Marion.

Credentials—D. C. Houser, Urbana, chairman; R. C. Hunter, Wapakoneta; D. J. Slosser, Defiance.

Tellers and Judges of Election—G. M. Lane, Springfield, chairman; Robert M. Lemmon, Akron; M. D. Shilling, Ashland; V. V. Smith, Ironton; L. E. Stenger, Lancaster.

ANNUAL REPORTS

Annual Reports of officers and committees, published in the March, 1943, issue of *The Journal*, were submitted by title and referred to the Reference Committee on Annual Reports.

NOMINATING COMMITTEE

The House of Delegates then elected the following Committee on Nominations with instructions to report back to the House of Delegates at its Second Session on Wednesday morning:

First District—Robert C. Rothenberg, Cincinnati.

Second District—A. W. Carley, Dayton.

Third District—Frank M. Wiseley, Findlay.

Fourth District—L. D. Miller, Toledo.

Fifth District—M. Paul Motto, Cleveland.

Sixth District—Robert M. Lemmon, Akron.

Seventh District—C. F. Goll, Hopedale.

Eighth District—J. F. Weber, Marietta.

Ninth District—D. A. Berndt, Portsmouth.

Tenth District—John M. Thomas, Columbus.

Eleventh District—Ross M. Knoble, Sandusky.

INTRODUCTION OF RESOLUTIONS

The House of Delegates then passed to the next order of business, being the introduction of resolutions. The following resolutions were presented and referred, without debate, to the Reference Committee on Resolutions:

Resolution A. Introduced by Fay A. LeFevre, Cleveland:

WHEREAS, The present emergency has created a great shortage of physicians for service in the armed forces of the United States, and

WHEREAS, There are a great number of women physicians of the ages desired for such service, and

WHEREAS, The education and training of these women physicians is fully equal to that of the men physicians,

THEREFORE, BE IT RESOLVED, That the Ohio State Medical Association goes on record as favoring the granting of temporary commissions in the armed forces of the United States to women physicians for service during the present emergency.

Resolution B. Introduced by Fred W. Lane, Cambridge:

WHEREAS, There is no provision in the laws of Ohio governing the granting of aid to the aged for the payment of medical and hospital bills to the recipient of such aid, and

WHEREAS, It is deemed to the benefit of the recipient of such aid that provision be made for payment of any hospital or medical expense incurred by such recipient.

Now, Therefore, **BE IT HEREBY RESOLVED** by the Guernsey County Medical Society of Guernsey County, Ohio:

First: That the laws of Ohio governing the granting of aid to the aged shall be amended to provide that any hospital and medical expenses necessary to the recipient of such aid shall be furnished by the Division of Aid for the Aged upon the approval of the proper officials of such division.

Second: That there shall be provided in the Division of Aid for the Aged, a department to approve and allow all medical and hospital expenses to recipients of aid from said Division, and to approve the payment of said medical and hospital expenses direct

to the person or institution furnishing the same.

Third: That an appropriation shall be made and a fund provided to cover the expenses of any such medical and hospital services rendered to any such recipient, which hospital and medical expenses are incurred with the approval of the Division of Aid for the Aged.

Fourth: That General Code §1359-7 shall be amended and shall provide that priority shall be granted against unsecured claims not only for the expense of the last sickness but also for any hospital and medical expenses incurred with the approval of the Division of Aid for the Aged, and any money received therefrom shall be placed to the credit of said fund.

Fifth: That the secretary of this society is hereby authorized to certify a copy of this resolution to the Ohio State Medical Association for its consideration and action thereon.

Resolution C. Introduced by A. A. Brindley, L. D. Miller, R. C. Young and C. E. Hufford, Toledo:

A number of unfortunate situations have arisen this year in Toledo as a result of physicians making arrangements for the adoption of babies. It has been brought to our attention that similar situations have arisen elsewhere in the state. Therefore, the Council of the Academy of Medicine of Toledo and Lucas County has requested its Delegates to the Ohio State Medical Association to submit the following Resolution for consideration:

WHEREAS, A number of physicians have become involved in unfortunate situations through attempts to arrange for the adoption of unwanted babies, and

WHEREAS, A number of these babies were delivered in private hospitals and released from the hospitals to persons, other than relatives, desiring to adopt babies, and

WHEREAS, The laws of the State of Ohio are exact and definite in limiting the privileges of making arrangements for the adoption of children to legally licensed agencies, and

WHEREAS, Such legally licensed agencies to which cases may be referred are available to every community in the State,

IT IS HEREBY RESOLVED by the House of Delegates of the Ohio State Medical Association: That all physicians, who are members of the Association, be instructed to report at once to one of the child-placing agencies any case where adoption procedure is contemplated; and that the Ohio Hospital Association be asked to cooperate by requesting its member hospitals to observe the following policy with reference to adoption procedure:

1. Inform all members of the medical staffs concerning the Ohio law prohibiting anyone other than the Juvenile Court or a licensed children's agency from arranging the placement of any child under two years of age in a family not related to the child by blood or marriage. (Failure to observe this law is subject to heavy penalties.)

2. Report at once to one of the child-plac-

ing agencies any confinement case in which it is learned that adopting is contemplated.

3. Refuse to release a baby to any person other than the child's parent or relative until it has been ascertained that the child-placing laws of the State are being complied with.

4. Make certain, before the mother leaves the hospital without her baby, that some lawful arrangement has been made for the later removal of the child.

Resolution D. Introduced by A. A. Brindley, Toledo, on behalf of the Toledo Academy of Medicine:

WHEREAS, On June 9 in Atlantic City the A.M.A. House of Delegates voted an unqualified endorsement of the National Physicians Committee for the Extension of Medical Service through a resolution reading as follows:

BE IT RESOLVED, That we register our approval of the activities of the National Physicians Committee for the Extension of Medical Service, commend the Board of Trustees and Management of this institution for the efforts they have made to enlighten the general public in connection with American Medicine's methods, progress and achievements and in pointing out that the public has a vital interest in the final result; and

BE IT FURTHER RESOLVED, That it be declared the policy of this House of Delegates to encourage this effort and similar efforts with identical purposes. And,

WHEREAS, The Report of Delegates to the American Medical Association contains the following statement: "It is the considered judgment of those who have reasons to be thought of as having a vision of the future that the N.P.C. is now more needed than ever before and deserves the wholehearted support of all component and constituent medical societies."

THEREFORE, BE IT RESOLVED, That we, the House of Delegates of the Ohio State Medical Association, reaffirm our support of this all-physician institution and recommend that each and every component society of the O.S.M.A. cooperate with the N.P.C. in its effective efforts dedicated, in the public interest, to preserving for doctors of medicine the distribution of medical service in the United States.

Resolution E. Introduced by J. C. Elder, Millersburg, on behalf of the Holmes County Medical Society:

WHEREAS, Numerous physicians and surgeons, in answer to the call of their government, voluntarily gave up profitable medical practices to enter the various branches of the United States Military Forces and are rendering valuable professional services in the care and treatment of the men and women in the service of their country, and

WHEREAS, These physicians and surgeons, many of whom have families to support and maintain and children to educate, had just cause to believe that they would receive advancements in rank commensurate with the importance and value of their services and comparable to the general advancement in rank of those in other branches of the service, and,

WHEREAS, It is generally recognized that in the various wars in which our United States Government has been involved, the advancement of physicians and surgeons has not been commensurate with the advancement of officers in the other branches of service, which adversely affects the morale of those in the medical units,

NOW THEREFORE, BE AND THE SAME IS HEREBY RESOLVED, That this Association by and through its duly elected officers cause the matters set forth in this resolution to be presented to the proper authority of the United States Government for consideration in order that a more just and equitable system of advancement of the physicians and surgeons in the various branches of our United States Military Forces may be established.

Resolution F. Introduced by Chas. T. Atkinson, Middletown:

WHEREAS, The War Production Board advises that sick and injured war production workers lose 6,000,000 workdays each month, and

WHEREAS, Donald Nelson, Chairman of the War Production Board, and Paul V. McNutt, Chairman of the War Manpower Commission, and others are urging that every state and community make it their job to take active part in saving as many of those lost days as possible for the production drive and keep the nation's workers on the job and physically fit, and

WHEREAS, The National Research Council is asking the general public to focus its attention on proper food nutrition for better health defense, and,

WHEREAS, There is an urgent need for better distribution of authentic health information and first aid training in home and factory and among men in Army camps and Naval stations, and by Red Cross workers, block captains, and civilian defense authorities, and

WHEREAS, Thousands of physicians have already left civilian practice to enter the armed forces, and

WHEREAS, The increased public demand for health information cannot be met alone by the heavily worked physicians who remain in private practice, and

WHEREAS, It remains the responsibility of the medical profession to do its utmost in disseminating to the laity health information and sound advice, and

WHEREAS, In 1921 at the Boston Session of the American Medical Association the House of Delegates authorized the publication of *Hygeia, The Health Magazine*, which was designed to give sound health information in nontechnical language, to interpret the progress in scientific and preventive medicines, and to discourage the reliance on quacks and the use of patent medicines, and

WHEREAS, There is no other national magazine in the field of health that offers the large amount of authentic health information in lay language, and

WHEREAS, This magazine, under careful scrutiny of the American Medical Association, maintains high professional standards of accuracy in its editorial and advertising policy,

THEREFORE BE IT RESOLVED, That the House of Delegates of the Ohio State Medical Society, in recognition of the great public need for reliable health information, and in recognition of the service that *Hygeia, The Health Magazine*, can perform in terms of industrial, civilian and community health, hereby endorse this magazine, and to this end recommend that officers and members of the county medical societies of the Ohio State Medical Society urge wider recognition of *Hygeia* in their communities.

BE IT FURTHER RESOLVED, That we offer full support and complete cooperation to the Woman's Auxiliary to the Ohio Medical Society and its affiliated units in their efforts to disseminate health information through *Hygeia, The Health Magazine*, and to urge them to introduce *Hygeia* in war industries, Army camps, USO Centers, reception rooms of physicians and dentists, and among their patients in homes, schools, teachers' colleges, libraries, parent-teacher organizations, private clubs and other community centers.

BE IT FURTHER RESOLVED, That copies of this resolution be sent to the Editor of *Hygeia* at the headquarters of The American Medical Association in Chicago and to the secretary of each component county medical society of the Ohio State Medical Society with the request that this resolution be read at the next stated meeting and similar action taken to cooperate in this health education campaign by widening the distribution of *Hygeia, The Health Magazine*.

Resolution G. Introduced by The Council:

WHEREAS, The medical profession is conscious of its responsibilities in providing medical services to all of the American people, and

WHEREAS, The medical profession believes that it is its duty to make available scientific facts, data and medical opinion with respect to existing and proposed medical and health programs and is ready to offer constructive leadership on such matters, and

WHEREAS, Many proposals relating to medical and health services during the post-war era are under consideration at Washington, involving legislation and regulatory procedures, and

WHEREAS, It has become increasingly important that first-hand information on such matters should be made available to the medical profession generally and vital relationships established between the medical profession and members of the legislative and executive branches of the Federal Government so that the views of the medical profession can be transmitted promptly to proper officials of such branches,

THEREFORE BE IT RESOLVED, That the Ohio State Medical Association shall instruct its delegates to the American Medical Association to recommend to the House of Delegates of the national association that it authorize the establishment of a full-time executive office at Washington, D.C., in charge of a full-time director who shall be directly responsible to the Board of Trustees of the American Medical Association in serving as a liaison on legislative and governmental activities pertaining to medical and health matters.

1944 ANNUAL MEETING

President McCormick then asked the House of Delegates to discuss the question of what plans should be made at this time for the 1944 Annual Meeting. After discussion, on motion by D. A. Berndt, Scioto County, seconded by R. C. Hunter, Auglaize County, and **carried**, the House of Delegates voted to submit the question of determining the time and place for the 1944 Annual Meeting to The Council for action at the appropriate time.

Dr. McCormick then introduced to the House of Delegates two of the Annual Meeting guest speakers, namely: Dr. Elmer L. Henderson, Louisville, Ky., chairman, Fifth Service Command, Procurement and Assignment Service for Physicians, and member of the Board of Trustees of the American Medical Association; Dr. Walter F. Donaldson, Pittsburgh, secretary of the Medical Society of the State of Pennsylvania and chairman, War Participation Committee of the American Medical Association.

There being no further business, the House of Delegates then recessed until 8:30 A.M., Wednesday, March 31.

MINUTES OF THE SECOND SESSION

THE second and final session of the House of Delegates, 97th Annual Meeting, was called to order by President McCormick at 8:30 A.M., Wednesday, March 31, Junior Ballroom, Neil House. The roll call showed 96 delegates present.

REPORT OF COMMITTEE ON ANNUAL REPORTS

The first order of business was consideration of the report of the Reference Committee on Annual Reports. The following report was presented by Chas. T. Atkinson, Middletown, chairman of that committee:

"The Reference Committee on Annual Reports submits the following report. This report is based mainly on the streamlined committee reports in the March, 1943, issue of *The Ohio State Medical Journal*.

"1. **Committee on War Participation.** This committee, now known as the Procurement and Assignment Committee, has done a tremendous piece of work, and probably will continue to do so until the end of the war. They have been 'cussed' and discussed more than any other committee ever has been, but in spite of criticism, have kept Ohio's quota up to par, and the civilian population from suffering from lack of medical care. As time goes on, their task will become more difficult, because physicians available for Army service are going to be scarce. To meet future quotas the available men will have to be, from time to time, revaluated.

"The physicians obtained for 1943 by reappraisal, especially of the metropolitan areas, may be augmented by rechecking former physical rejections, since the standards have been somewhat lowered. It might be well for this committee to do this rechecking if in their province.

"This committee admits some mistakes, but we feel their job has been well done, and that Dr. Conard and his committee deserve the thanks of the Association and the commonwealth.

"2. **Committee on Public Relations and Economics:** This committee has done a great deal of work in fostering legislation beneficial to the Association, and in defeating numerous unfavorable bills. They have kept the doctors informed about what bills are coming up in the Legislature, and how to contact legislators and others responsible for passage or defeat of legislation.

"These activities must be greatly accelerated if radical legislation is to be defeated. The apathy of the general public to local legislation during war times will be taken advantage of by our enemies, if the entire Association does not support to the fullest our officers and these committeemen in their untiring work against crackpot legislation.

"The public relations work of this committee has been well done, and in spite of difficulties, our publicity has been good. The importance of the Bureau of Education will be enormous in the coming era of social reform, and now is the time to broaden its scope. This committee has done an excellent job, and is to be congratulated.

"3. **Committee on Industrial Health.** Local county committees have been organized, set up under the central committee, and an effort is being made to provide all industries with adequate health education facilities. This committee is also helping industry to adjust its nursing and medical care problems. During the present shortage of physicians this is an important task. The long-range planning of this committee is to be commended, and will greatly facilitate our post war industry and labor contacts.

"4. **Committee on Auditing and Appropriations and the Treasurer.** The audit of the books of the Association for 1942 showed our financial condition to be sound. The officers of the Association are to be congratulated for their good management of the Association's finances. Revenues for the next few years will be considerably reduced, and careful financing will be necessary, therefore all members should meet their obligations promptly."

On motion by Dr. Atkinson, seconded by D. S. Spreng, Cuyahoga County, and **carried**, the report of the Reference Committee on Annual Reports was **approved**.

REPORT OF COMMITTEE ON RESOLUTIONS

E. O. Swartz, Cincinnati, chairman of the Reference Committee on Resolutions, then presented the report of his committee as follows:

"The seven resolutions presented at Tuesday's session of the House of Delegates have been carefully considered by the Reference Committee on Resolutions.

Resolution A

"Resolution A, presented by Fay A. LeFevre, Cuyahoga County, read as follows:

"WHEREAS, The present emergency has created a great shortage of physicians for service in the armed forces of the United States, and

"WHEREAS, There are a great number of women physicians of the ages desired for such service, and

"WHEREAS, The education and training of

these women physicians is fully equal to that of the men physicians,

"THEREFORE BE IT RESOLVED, That the Ohio State Medical Association goes on record as favoring the granting of temporary commissions in the armed forces of the United States to women physicians for service during the present emergency.

"Your committee endorses this resolution and recommends its adoption".

Resolution B

"The following resolution was presented by Fred W. Lane, Guernsey County:

"WHEREAS, There is no provision in the laws of Ohio governing the granting of aid to the aged for the payment of medical and hospital bills to the recipient of such aid, and

"WHEREAS, It is deemed to the benefit of the recipient of such aid that provision be made for payment of any hospital or medical expenses incurred by such recipient.

"NOW, THEREFORE, BE IT RESOLVED by the Guernsey County Medical Society of Guernsey County Ohio.

"First: That the laws of Ohio governing the granting of aid to the aged shall be amended to provide that any hospital and medical expenses necessary to the recipient of such aid shall be furnished by the Division of Aid for the Aged upon the approval of the proper officials of such division.

"Second: That there shall be provided in the Division of Aid for the Aged, a department to approve and allow all medical and hospital expenses to recipients of aid from said Division, and to approve the payment of said medical and hospital expenses direct to the person or institution furnishing the same.

"Third: That an appropriation shall be made and a fund provided to cover the expenses of any such medical and hospital services rendered to any such recipient, which hospital and medical expenses are incurred with the approval of the Division of Aid for the Aged.

"Fourth: That General Code §1359-7 shall be amended and shall provide that priority shall be granted against unsecured claims not only for the expense of the last sickness but also for any hospital and medical expenses incurred with the approval of the Division of Aid for the Aged, and any money received therefrom shall be placed to the credit of said fund.

"Fifth: That the secretary of this society is hereby authorized to certify a copy of this resolution to the Ohio State Medical Association for its consideration and action thereon.

"This resolution contains questions involving proposed legislation, the expenditure of public funds, and the establishment of administrative procedure. It is the belief of your committee that it would be unwise for the House of Delegates to attempt to pass judgment on a resolution of this scope and importance at this particular time. We feel that additional data should be obtained and

that conferences should be held with proper officials of the Division of Aid for the Aged.

"Therefore, your committee recommends to the House of Delegates that the House of Delegates refer this resolution to The Council for consideration and action."

Resolution C

"This resolution was presented by A. A. Brindley and the other delegates of Lucas County—Drs. Miller, Young, and Hufford, reading as follows:

"WHEREAS, A number of physicians have become involved in unfortunate situations through attempts to arrange for the adoption of unwanted babies, and

"WHEREAS, A number of these babies were delivered in private hospitals and released from the hospitals to persons, other than relatives, desiring to adopt the babies, and

"WHEREAS, The laws of the State of Ohio are exact and definite in limiting the privilege of making arrangements for the adoption of children to legally licensed agencies, and

"WHEREAS, Such legally licensed agencies to which cases may be referred are available to every community in the State,

"IT IS HEREBY RESOLVED by the House of Delegates of the Ohio State Medical Association: That all physicians, who are members of the Association, be instructed to report at once to one of the child-placing agencies any case where adoption procedure is contemplated; and that the Ohio Hospital Association be asked to cooperate by requesting its member hospitals to observe the following policy with reference to adoption procedure:

"1. Inform all members of the medical staffs concerning the Ohio law prohibiting anyone other than the Juvenile Court or a licensed children's agency from arranging the placement of any child under two years of age in a family not related to the child by blood or marriage. (Failure to observe this law is subject to heavy penalties.)

"2. Report at once to one of the child-placing agencies any confinement case in which it is learned that adopting is contemplated.

"3. Refuse to release a baby to any person other than the child's parent or relative until it has been ascertained that the child-placing laws of the State are being complied with.

"4. Make certain, before the mother leaves the hospital without her baby, that some lawful arrangement has been made for the later removal of the child.

"Your committee has carefully studied this resolution and recommends the adoption of the following substitute on the same subject:

Substitute Resolution C

"WHEREAS, There seems to be considerable lack of knowledge in the medical profession of the laws governing the placing of children under two years of age with foster parents, and

"WHEREAS, A number of physicians have become involved in unfortunate situations resulting from unintentional violation of these laws, and

"WHEREAS, The Legislature may change some of these laws at its present session,

"THEREFORE BE IT RESOLVED, That the House of Delegates direct the preparation and publication in *The Ohio State Medical Journal* of material on this subject for the information of the membership, and

"FURTHER BE IT RESOLVED, That we request the Ohio Hospital Association to cooperate in the dissemination of similar information among its members."

Resolution D

"The following resolution was presented by A. A. Brindley, Lucas County, on behalf of the Toledo Academy of Medicine:

"WHEREAS, On June 9 in Atlantic City the A.M.A. House of Delegates voted an unqualified endorsement of the National Physicians Committee for the Extension of Medical Service through a resolution reading as follows:

"BE IT RESOLVED, That we register our approval of the activities of the National Physicians Committee for the Extension of Medical Service, commend the Board of Trustees and Management of this institution for the efforts they have made to enlighten the general public in connection with American Medicine's methods, progress and achievements and in pointing out that the public has a vital interest in the final result; and

"BE IT FURTHER RESOLVED, That it be declared the policy of this House of Delegates to encourage this effort and similar efforts with identical purposes;" and

"WHEREAS, The report of Delegates to the the American Medical Association contains the following statement: 'It is the considered judgment of those who have reasons to be thought of as having a vision of the future that the N.P.C. is now more needed than ever before and deserves the wholehearted support of all component and constituent medical societies.'

"THEREFORE BE IT RESOLVED, That we, the House of Delegates of the Ohio State Medical Association, reaffirm our support of this all physician institution and recommend that each and every component society of the O.S.M.A. cooperate with N.P.C. in its effective efforts dedicated, in the public interest, to preserving for doctors of medicine the distribution of medical service in the United States.

"After careful consideration of this resolution, your Reference Committee, believing that it would be unwise for the Ohio State Medical Association to lend its endorsement to organizations over which it has no control, recommends the adoption of the following substitute resolution:

Substitute Resolution D

"WHEREAS, The question of official endorsement by the Ohio State Medical Association of the National Physicians Committee for the Extension of Medical Service has been analyzed and acted upon on four separate occasions

by The Council of the Ohio State Medical Association, and

"WHEREAS, The action of The Council on each occasion has been to the effect that affiliation with the National Physicians Committee is a matter to be decided individually by members of the medical profession,

"THEREFORE BE IT RESOLVED, That the House of Delegates approve the existing policy as set forth in actions of The Council as stated above.

Resolution E

"Resolution E, reading as follows, was presented by J. C. Elder, Holmes County:

"WHEREAS, Numerous physicians and surgeons, in answer to the call of their government, voluntarily gave up profitable medical practices to enter the various branches of the United States Military Forces and are rendering valuable professional services in the care and treatment of the men and women in the service of their country, and

"WHEREAS, These physicians and surgeons, many of whom have families to support and maintain and children to educate, had just cause to believe that they would receive advancements in rank commensurate with the importance and value of their services and comparable to the general advancement in rank of those in other branches of service, and

"WHEREAS, It is generally recognized that in the various wars in which our United States Government has been involved, the advancement of physicians and surgeons has not been commensurate with the advancement of officers in the other branches of service, which adversely affects the morale of those in the medical units,

"NOW THEREFORE BE AND THE SAME IS HEREBY RESOLVED, That this Association by and through its duly elected officers cause the matters set forth in this resolution to be presented to the proper authority of the United States Government for consideration in order that a more just and equitable system of advancement of the physicians and surgeons in the various branches of our United States Military Forces may be established.

"Your Reference Committee sincerely hopes that physicians entering the Armed Forces as medical officers will be accorded advancements commensurate with their professional qualifications, attainments, and meritorious services. Your committee is of the opinion that the officials of the War and Navy Departments will make every possible effort to see that this is carried out. We feel that the Army and the Navy are anxious to promote medical officers as rapidly as the exigencies of the changing situation permit, but that, in the final analysis, much depends on the individual initiative and ability of the medical officer.

"For that reason your committee feels that a petition such as that suggested would be of no tangible effect or value at this time and therefore recommends that this resolution be not adopted."

Resolution F

"The following resolution was presented by Chas. T. Atkinson, Butler County, and your committee recommends its adoption:

"WHEREAS, The War Production Board advises that sick and injured war production workers lose 6,000,000 workdays each month, and

"WHEREAS, Donald Nelson, Chairman of the War Production Board and Paul V. McNutt, Chairman of the War Manpower Commission, and others are urging that every state and community make it their job to take active part in saving as many of those lost days as possible for the production drive and keep the nation's workers on the job and physically fit, and

"WHEREAS, The National Research Council is asking the general public to focus its attention on proper food and nutrition for better health defense, and,

"WHEREAS, There is an urgent need for better distribution of authentic health information and first aid training in home and factory and among men in Army camps and Naval stations, and by Red Cross workers, block captains, and civilian defense authorities, and

"WHEREAS, Thousands of physicians have already left civilian practice to enter the armed forces, and

"WHEREAS, The increased public demand for health information cannot be met alone by the heavily worked physicians who remain in private practice, and

"WHEREAS, It remains the responsibility of the medical profession to do its utmost in disseminating to the laity health information and sound advice, and

"WHEREAS, In 1921 at the Boston Session of the American Medical Association the House of Delegates authorized the publication of *Hygeia, The Health Magazine*, which was designed to give sound health information in nontechnical language, to interpret the progress in scientific and preventive medicines, and to discourage the reliance on quacks and the use of patent medicines, and

"WHEREAS, There is no other national magazine in the field of health that offers the large amount of authentic health information in lay language, and,

"WHEREAS, This magazine, under careful scrutiny of the American Medical Association, maintains high professional standards of accuracy in its editorial and advertising policy,

"THEREFORE BE IT RESOLVED, That the House of Delegates of the Ohio State Medical Society, in recognition of the great public need for reliable health information, and in recognition of the service that *Hygeia, The Health Magazine*, can perform in terms of industrial, civilian and community health, hereby endorse this magazine, and to this end recommend that officers and members of the county medical societies of the Ohio State Medical Society urge wider recognition of *Hygeia* in their communities.

"BE IT FURTHER RESOLVED, That we offer full support and complete cooperation to the Woman's Auxiliary to the Ohio Medical Society and its affiliated units in their efforts to disseminate health information through *Hygeia, The Health Magazine*, and to urge them to introduce *Hygeia* in war industries, Army camps, USO Centers, reception rooms of physicians and dentists, and among their patients in homes, schools, teachers, colleges, libraries, parent-teacher organizations, private clubs and other community centers.

"BE IT FURTHER RESOLVED, That copies of this resolution be sent to the Editor of *Hygeia* at the headquarters of The American Medical Association in Chicago and to the secretary of each component County Medical Society of the Ohio State Medical Society with the request that this resolution be read at the next stated meeting and similar action taken to cooperate in this health education campaign by widening the distribution of *Hygeia, The Health Magazine*."

Resolution G

"Resolution G was presented on behalf of The Council. It reads as follows:

"WHEREAS, The medical profession is conscious of its responsibilities in providing medical services to all of the American people, and

"WHEREAS, The medical profession believes that it is its duty to make available scientific facts, data and medical opinion with respect to existing and proposed medical and health programs and is ready to offer constructive leadership on such matters, and

"WHEREAS, Many proposals relating to medical and health services during the post-war era are under consideration at Washington, involving legislation and regulatory procedures, and

"WHEREAS, It has become increasingly important that first-hand information on such matters should be made available to the medical profession generally and vital relationships established between the medical profession and members of the legislative and executive branches of the Federal Government so that the views of the medical profession can be transmitted promptly to proper officials of such branches,

"THEREFORE BE IT RESOLVED, That the Ohio State Medical Association shall instruct its delegates to the American Medical Association to recommend to the House of Delegates of the national association that it authorize the establishment of a full-time executive office at Washington, D.C., in charge of a full-time director who shall be directly responsible to the Board of Trustees of the American Medical Association in serving as a liaison on legislative and governmental activities pertaining to medical health matters.

"Your Reference Committee is heartily in accord with the recommendations contained in this resolution and recommends its adoption."

On motion by Dr. Swartz, seconded by Harry V. Paryzek, Cuyahoga County, and carried, the report and recommendations of the Reference Committee on Resolutions on the seven resolutions were adopted.

ELECTION OF THE PRESIDENT-ELECT

At this point the President called for nominations from the floor for the office of President-Elect. Harry V. Paryzek, Cleveland, presented the name of **L. Howard Schriver**, Cincinnati, present member of The Council representing the First Councilor District. There being no further nominations, on **motion** by George T. Harding, Columbus, seconded by A. A. Brindley, Toledo, and **carried**, the nominations were closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for **Dr. Schriver** as President-Elect. This being done, Dr. Schriver was officially elected.

President McCormick requested D. C. Houser, Urbana, R. R. Hendershott of Tiffin, and Wm. M. Skipp of Youngstown, former Presidents of the Association, to escort Dr. Schriver to the platform for introduction to the House of Delegates. This was done and, after a brief address by Dr. Schriver, the House of Delegates passed to the next order of business, being the consideration of the Report of the Committee on Nominations.

REPORT OF COMMITTEE ON NOMINATIONS

The following report was presented by Robert C. Rothenberg, Cincinnati, chairman of that committee:

ELECTION OF COUNCILORS

For Councilors for the even-numbered Districts for a **two-year term**:

Second District—H. C. Messenger, Xenia, to succeed D. W. Hogue, Springfield, who has served the maximum permissible term.

Fourth District—A. A. Brindley, Toledo, to succeed himself.

Sixth District—R. L. Rutledge, Alliance, to succeed himself.

Eighth District—George F. Swan, Cambridge, to succeed himself.

Tenth District—George T. Harding, Columbus, to succeed himself.

There being no nominations from the floor, on **motion** by D. W. Hogue, Springfield, seconded by William M. Skipp, Youngstown, and **carried**, the nominations were closed and the Secretary instructed to cast the ballot of the House of Delegates for the foregoing nominees for the office of Councilor. This being done, President McCormick **officially declared them duly elected**.

Due to the election of Dr. Schriver as President-Elect, the President called attention to the fact that there would be a vacancy for the office of Councilor of the First District for the year 1943-1944 and he called for nominations from the floor for that office. On **motion** by D. W. Heusinkveld, Cincinnati, seconded by Ross M. Knoble, Sandusky, and **carried**, the name of **E. O. Swartz**, Cincinnati, was placed in nomination. There being no further nominations, on **motion**

by Emil R. Swepston, Cincinnati, seconded by M. D. Shilling, Ashland, and **carried**, the nominations were closed and the Secretary instructed to cast the ballot of the House of Delegates for Dr. Swartz. This being done, President McCormick **officially declared Dr. Swartz elected to the office of Councilor for the First District**.

ELECTION OF A.M.A. DELEGATES AND ALTERNATES

Dr. Rothenberg then presented the following nominees for the positions of delegate and alternate to the American Medical Association for the years 1943 and 1944:

Delegate—Barney J. Hein, Toledo, to succeed himself; **Alternate**—Frank M. Wiseley, Findlay, to succeed himself.

Delegate—Parke G. Smith, Cincinnati, to succeed himself; **Alternate**—E. O. Swartz, Cincinnati to succeed himself.

Delegate—William M. Skipp, Youngstown, to succeed himself; **Alternate**—Russel G. Means, Columbus, to succeed Dow Allard, Portsmouth, now in military service.

There being no further nominations, on **motion** by D. S. Spreng, Cleveland, seconded by A. W. Carley, Dayton, and **carried**, the Secretary was instructed to cast the ballot for the foregoing nominees. This being done, President McCormick **declared them duly elected**.

The Nominating Committee then presented the name of **Edward J. McCormick**, Toledo, to succeed John B. Alcorn, Columbus, deceased, for the unexpired term of one year, 1943. There being no further nominations, on **motion** by C. E. Hufford, Toledo, seconded by George T. Harding, Columbus, and **carried**, the nominations were closed and the Secretary instructed to cast the ballot for Dr. McCormick as a member of the House of Delegates to the American Medical Association for the year 1943. This being done, President-Elect Sherburne **declared Dr. McCormick duly elected**.

ELECTION OF TREASURER

As a nominee for Treasurer to succeed James A. Beer, Columbus, who has served the maximum permissible term, the Nominating Committee presented the name of **Harry E. LeFever**, Columbus. There being no further nominations, on **motion** by James A. Beer, Columbus, seconded by E. O. Swartz, Cincinnati, and **carried**, the Secretary was instructed to cast the unanimous vote of the House of Delegates for Dr. LeFever. This being done, President McCormick **declared Dr. LeFever officially elected to the office of Treasurer for a term of three years**.

Dr. McCormick asked Dr. Hogue, retiring as Councilor of the Second District, and Dr. Beer, retiring as Treasurer, to arise and he complimented them on their long and efficient services on behalf of the State Association. The House

of Delegates acknowledged this tribute to Dr. Hogue and Dr. Beer by a round of applause.

INSTALLATION OF NEW PRESIDENT

Dr. McCormick then thanked the House of Delegates and the membership of the State Association at large for the splendid support given him during his term of office and then officially installed C. C. Sherburne, Columbus, as President for 1943-1944.

APPOINTMENT OF COMMITTEES

Following brief remarks expressing appreciation for the high honor which had been accorded him and assuring the House of Delegates that he would do everything possible to carry on in the interest of the medical profession as a whole, President Sherburne announced the appointment of the following committee members, which appointments, on motion by A. A. Brindley, Toledo, seconded by D. S. Spreng, Cleveland, and carried, were officially confirmed by the House of Delegates:

Committee on Public Relations and Economics—Cecil Striker, Cincinnati, appointed for a five-year term. Barney J. Hein, Toledo, to serve as Chairman for 1943-1944.

Committee on Education—Russell L. Haden, Cleveland, appointed for a five-year term. S. H. Ashmun, Dayton, to serve as Chairman for 1943-1944.

Judicial and Professional Relations Committee—J. E. Tuckerman, Cleveland, reappointed for a five-year term. S. A. Hatfield, Columbus, to replace Phillip T. Knies, Columbus, now in military service. John A. Caldwell, Cincinnati, to replace Howard D. Fabing, Cincinnati, now in military service. James G. Kramer, Akron, to serve as Chairman for 1943-1944.

Committee on Scientific Work—Homer D. Casel, Dayton, appointed for a five-year term. Charles A. Doan, Columbus, to serve as Chairman for 1943-1944.

At this point Dr. Sherburne recognized Dr. Hogue who addressed the House of Delegates. He called attention to the vital problems which would confront the medical profession during the next few years and earnestly requested all delegates to give 100 per cent support to The Council and the Officers, as well as the Headquarters Office. Dr. Hogue complimented the members of The Council for the great sacrifice of time and their untiring efforts in transacting the official business of the Association and he also paid tribute to the work being done in the State Office at Columbus.

There being no further business, the House of Delegates adjourned sine die.

Attest: CHARLES S. NELSON,
Executive Secretary.

House of Delegates Roll Call
97th Annual Meeting

County	Delegate	First Session	Second Session
Adams	R. C. Wenrich		
Allen	R. C. Yingling	present	present
Ashland	M. D. Shilling	present	present
Ashtabula	R. B. Wynkoop	present	present
Athens	Byron Danford	present	present
Auglaize	R. C. Hunter	present	present
Belmont	H. F. Wiedman		
Brown			
Butler	Chas. T. Atkinson	present	present
Carroll	Joseph D. Stires		
Champaign	D. C. Houser	present	present
Clark	G. M. Lane		present
Clermont	J. M. Coleman	present	
Clinton	Robert Conard	present	present
Columbiana	Paul H. Beaver		
Coshocton	A. P. Magness	present	
Crawford	C. A. Marquart		
Cuyahoga	Fay A. LeFevre	present	present
"	Wm. E. Hill	present	present
"	M. Paul Motto	present	present
"	James N. Wychgel	present	present
"	R. B. Crawford	present	present
"	A. B. Bruner	present	present
"	C. E. Kinney	present	
"	D. S. Spreng	present	present
"	H. C. Rosenberger	present	present
"	M. F. Oman	present	present
"	N. L. Farinacci		present
"	R. S. Reich	present	present
"	W. P. Garver	present	present
"	R. J. Whitacre	present	present
"	L. E. Papurt	present	
Darke	C. I. Stephen		
Defiance	D. J. Slosser	present	present
Delaware	M. S. Cherington		
Erie	V. A. Killoran	present	present
Fairfield	E. B. Roller		
Fayette	J. H. Persinger		
Franklin	Russel G. Means		
"	Harry E. LeFever	present	present
"	Charles W. Pavey	present	present
"	Edwin J. Stedem	present	present
"	John M. Thomas	present	present
"	Roy J. Secrest	present	present
"	Louis N. Jentgen		present
Fulton	C. Harold Heffron		
Gallia	Francis W. Shane		
Geauga	W. R. Reed	present	present
Greene	C. G. McPherson	present	present
Guernsey	Fred W. Lane	present	present
Hamilton	Lloyd B. Johnston	present	present
"	E. O. Swartz	present	present
"	Donald J. Lyle	present	present
"	D. W. Heusinkveld	present	present
"	Emil R. Swepston	present	present
"	Joseph C. Lindner	present	present
"	Theodore H. Vinke	present	present
"	Robert C. Rothenberg	present	present
"	Eugene B. Ferris, Jr.	present	present
Hancock	Frank M. Wiseley	present	present
Hardin	R. G. Schutte		
Harrison	C. F. Goll	present	present
Henry	J. J. Harrison		
Highland	J. H. Frame		
Hocking	H. G. Southard	present	present
Holmes	J. C. Elder	present	present
Huron	George F. Linn	present	present
Jackson	J. S. Hunter		
Jefferson	S. J. Podlewski	present	present
Knox	James F. Lee	present	
Lake	V. N. Marsh	present	present
Lawrence	V. V. Smith		
Licking	Arthur J. Tronstein	present	present
Logan	Charles L. Barrett		
Lorain	Chas. R. Meek	present	present
"	Virgil Hart		
Lucas	L. D. Miller	present	
"	F. N. Nagel		
"	R. C. Young	present	present
"	C. E. Hufford	present	present
Madison	W. A. Holman	present	
Mahoning	Edward J. Reilly	present	present
"	J. N. McCann	present	
"	Wm. M. Skipp	present	present
Marion	H. K. Mouser		present
Medina	F. C. Reutter	present	present
Meigs	P. A. Jividen		
Mercer	R. E. Riley		
Miami	G. A. Woodhouse	present	present
Montgomery	A. W. Carley	present	present
"	R. S. Binkley	present	present

County	Delegate	First Session	Second Session
"	M. R. Haley	-----	-----
"	R. D. Dooley	present	present
Morgan	Claude V. Davis	-----	present
Morrow	Wm. Lowell Murphy	-----	-----
Muskingum	M. A. Loebell	present	present
Ottawa	Wm. R. Gibson	-----	present
Paulding	D. E. Farling	present	present
Perry	James Miller	-----	present
Pickaway	A. D. Blackburn	present	-----
Pike	I. P. Seiler	present	present
Portage	E. M. Kauffman	present	present
Preble	G. W. Flory	present	present
Putnam	H. H. Sink	-----	-----
Richland	L. C. Nigh	present	-----
Ross	O. P. Tatman	-----	-----
Sandusky	C. A. Kingman	present	present
Scioto	D. A. Berndt	present	present
Seneca	R. R. Hendershott	present	present
Shelby	R. W. Alvis	-----	-----
Stark	J. Edwin Purdy	present	present
"	Clair B. King	present	present
"	L. L. Frick	present	-----
Summit	Robert M. Lemmon	present	present
"	Roger E. Pinkerton	present	present
"	Vincent C. Malloy	present	present
"	Richard A. Gregg	present	present
Trumbull	R. D. Herlinger	-----	-----
Tuscarawas	Jay W. Calhoon	present	present
Union	John D. Boylan	-----	present
Van Wert	W. E. Lawhead	present	-----
Vinton	H. D. Chamberlain	present	-----
Warren	N. A. Hamilton	-----	-----
Washington	J. F. Weber	present	present
Wayne	R. C. Paul	present	present
Williams	H. W. Wertz	present	present
Wood	Earl D. Foltz	-----	-----
Wyandot	J. Craig Bowman	present	present
OFFICERS			
President	Edward J. McCormick	present	present
President-Elect	C. C. Sherburne	present	-----
Past-President	Harry V. Paryzek	present	present
Treasurer	James A. Beer	present	present
COUNCILORS			
First District	L. Howard Schriver	present	present
Second District	D. W. Hogue	present	present
Third District	Guy E. Noble	present	present
Fourth District	A. A. Brindley	present	present
Fifth District	Edgar P. McNamee	-----	-----
Sixth District	Ralph L. Rutledge	present	present
Seventh District	Carl A. Lincke	present	present
Eighth District	George F. Swan	-----	-----
Ninth District	Gilbert Micklethwaite	present	-----
Tenth District	George T. Harding	present	present
Eleventh District	Ross M. Knoble	present	present
TOTALS		102	96

Present Status of Important Measures In Ohio General Assembly

As this issue of *The Journal* went to press the Ninety-Fifth Ohio General Assembly was still going strong. Predictions as to final adjournment ranged anywhere from May 10 to June 1, depending on how quickly the Assembly could work out snarls which have developed on a number of measures supported by the state administration.

In the June issue, *The Journal* hopes to be able to present a complete review of the outcome of between 75 and 100 proposals having a medical or health angle. The present status of some of the most important bills which the Legislative Committee of the Ohio State Medical Association have been watching carefully, follows:

Substitute House Bill 112, a compromise bill approved by The Council of the Ohio State Medical Association and the Ohio Osteopathic Society, drafted by a sub-committee of the

House Committee on Organization of State Government, has passed both houses and is now awaiting the Governor's signature. The vote in the House was 114 to 3; in the Senate, 30 to 0. It increases the size of the State Medical Board by one member, who shall be an osteopathic physician; abolishes the present osteopathic sections of the Medical Practice Act; requires osteopathic graduates of the future desiring to practice in Ohio to pass examinations given by the Medical Board and meet higher requirements and standards (virtually the same as those required of medical school graduates); grants to those who qualify and pass such examinations, a broader license; provides for evaluation of osteopathic schools by a committee consisting of the state director of education and two members of the Board, including the osteopathic member; requires present osteopathic physicians to practice under present restrictions but grants them an opportunity to qualify for the broader license providing they can prove they have had two years of approved pre-professional education or at least 36 weeks of approved postgraduate work and providing they pass certain examinations given by the State Medical Board.

House Bill 78, to exempt Christian Science practitioners and others claiming to heal by the use of prayer from the provisions of the Medical Practice Act, defeated by the House.

House Bill 345, to establish a separate examining and licensing board for chiropractors and increase their rights and privileges, killed by the House Health Committee.

House Bill 244, to nullify the Enabling Act for Medical Service Plans by making it inoperable until six months after the end of the war, defeated by the House Insurance Committee by a vote of 3 in favor of recommending for passage to 9 against the motion to recommend.

House Bill 275, to recodify the law regulating maternity hospitals and homes, one of the bills sponsored by the Children's Code Commission was indefinitely postponed by the House Health Committee.

Senate Bill 112, to provide that county commissioners may make lump sum payments to trustees of County Tuberculosis Hospitals for operation of such institutions (a permissive proposal) was passed by the Senate and is now before the House Health Committee.

Senate Bill 27 to establish a commission to supervise the acquiring of new sites for the state institutions for the deaf and for the blind, has been passed by both houses.

House Bill 142, to prohibit the construction of an institution for the insane, feeble minded or epileptics or for persons suffering from a communicable disease near to schools, has been passed by both houses.

Adjustment of The Physician to Civilian Needs in Wartime

(Annual Address of the Retiring President)

EDWARD J. McCORMICK, M.D., Toledo, Ohio

IN 1787 a group of men gathered in a brick house on Chestnut Street in Philadelphia. The structure was already immortalized because there the Declaration of Independence had been signed. The men varied in age from twenty-five years to eighty-one. Benjamin Franklin was the oldster. James Madison of Virginia according to Fiske "maintained leadership thru the force of a giant intellect". George Washington was elected chairman. Alexander Hamilton was a part of the New York contingent. From Pennsylvania came the Morrisises, Robert and Gouverneur. There were 55 men, 29 were university graduates, 31 were lawyers, the others were farmers, educators, physicians, financiers and merchants.

The deliberations of these men gave birth to the "American way of life". When the meeting adjourned the Constitution of the United States had been written and when it was later adopted became the supreme law of the land.

Amendments to the Constitution were possible and the first 10 are known as the Bill of Rights. Dear to Patrick Henry and Sam Adams, they were introduced by James Madison. The Constitution of the United States and the Bill of Rights guaranteed to all persons living under the American flag the right to live, to be free, to seek happiness. All were assured of freedom of the press, freedom of speech, and freedom of religion. Peaceful assemblage and the right to trial by jury became the heritage of Americans.

AMERICA THE LEADER

The Constitution of the United States is the greatest document ever written. Not entirely original it nevertheless brought into actual operation government "by and for the people," government which derived its power from the consent of the governed, government which recognized the right of the rail splitter to become president, government which sponsored personal initiative and independence.

Democracy has made America the greatest country in the world. We lead the world in every conceivable department of human endeavor.

American medical men have come to be recognized as the world's leaders in the healing art and have taken their places beside American engineers, teachers, financiers, architects, artists, and business men as the best in the world and

before many months have gone the world will acknowledge the unquestioned supremacy of the American fighting men on land, on the sea and in the air.

American medicine has developed great leaders. The medical record of this young country is the envy of the world. Democracy has made possible a great profession—a loyal profession, capable of adjusting itself to the needs of its fellow citizens when their freedom and the freedom of mankind is threatened by the philosophies and ideologies of the Nazi, the Fascist or the Communist.

MEDICINE'S CONTRIBUTION TO THE WAR

The American medical profession before and since Pearl Harbor has made a record which will forever grace the pages of American history. More than 40,000 physicians are now serving in the Armed Forces and 10,000 more will enter military service this year. Over 25,000 physicians are serving without pay as examiners for draft boards, thousands of them are taking an active part in Civilian Defense.

Those on the home front, regardless of age, are serving industry and rapidly expanding communities so well that to date while many commodities have been rationed, our hospitals are crowded, civilians are being cared for, medical teaching goes on at top speed, nurses are being taught in increasing numbers and health departments are operating and spreading the gospel of preventive medicine. Medical men have adopted the slogan of the trouper: "The show must go on."

No one in Ohio to my knowledge has been denied medical care. I judge, however, from the speeches that were made by Dr. Diehl and Dr. Henderson last night that there is a large number of persons per physician in some parts of our country, but nowhere in the United States does the physician face the large prospective patient groups that doctors find in their districts in England, France, Germany, Russia and China.

WELL-LAID PLANS HAVE WORKED

This excellent record has been made possible because the American Medical Association, cognizant of the inevitability of world conflict laid its plans many months ago and in conjunction with the government planned the Procurement and Assignment Service for Physicians, Dentists and Veterinarians. Procurement and Assignment was created by executive order of President

Address made on March 31, 1943, at the closing session of the Ninety-Seventh Annual Meeting of the Ohio State Medical Association, Columbus, Ohio.

Roosevelt to assist the Army, Navy and other federal services in securing physicians necessary to the Armed Forces with due consideration of civilian needs.

Dr. Robert Conard of Wilmington was appointed Chairman of Procurement and Assignment in Ohio and assisted by representatives of the various councilor districts has done an outstanding piece of work. This committee has evaluated the status of all Ohio physicians, has surveyed the medical needs of all counties and has interviewed hundreds of doctors, teachers and officials of hospitals and industry. The committee has co-operated with the recruiting drives of the Army and Navy. The office of the Ohio State Medical Association has been deluged by the clerical work of the committee, the processing of clearance forms and special investigations. The work has been done at considerable cost to the Ohio State Medical Association, money, man hours, and energy being contributed freely to the end that Ohio was the first of the larger states to meet and exceed its 1942 quota of physicians in uniform. No words of mine can repay Dr. Conard and his committee and Mr. Charles Nelson, our executive secretary, and Mr. George H. Saville, assistant executive secretary, and the office staff for their long hours of worry and labor. They have made a real contribution to the war effort. May God bless them and the more than 2,400 loyal physicians of the State of Ohio who have made great sacrifices that "government by and for the people shall not perish from the earth" forever.

COMMITTEE IS PRAISED

The Ohio Committee on Procurement and Assignment, also known as the Committee on War Participation of the Ohio State Medical Association, is directing its efforts to meet the additional demands of the armed forces and at the same time to guarantee to Ohio civilians adequate medical care. I can now say to you, as your president, without fear of contradiction that this committee will succeed in its efforts during the next 12 months. American medicine will serve the armed forces and the home front. The profession has adjusted and geared itself to the needs of war. Unlike manufacturers of automobiles and other articles of necessity and luxury who have stopped manufacture of their individual products to concentrate on the machines of war, medicine has found it necessary to take on two jobs, service on the home front and with the armed forces. To the everlasting credit of medicine let it be known that we are doing both jobs well. The profession in addition is faced with a third responsibility in the national emergency of which I shall speak later.

The medical profession of Ohio and of the United States has recognized that increased de-

mands and decreased numbers of civilian physicians is a challenge to the profession. In many communities plans have been made to guarantee constant availability of medical care for emergency cases. Greater stress is being placed on preventive medicine and immunization. Health education and nutrition education are receiving the attention of county medical societies. Industrial health in the nation and in Ohio is being studied by competent committees of the American Medical Association, the Ohio State Medical Association and other medical societies. Every effort is being made to bring about maximum utilization of available hospital facilities. Our medical schools are educating more doctors and our training schools for nurses have increased their enrollments. Physicians everywhere are working longer hours and caring for more patients. Marching hand in hand for the continued freedom of mankind are our fighting men, American Industry, American Labor, American Capital and Business, and American Medicine. The combination is powerful, but helpless one without all or all without one.

OHIO'S INDUSTRIAL HEALTH PROGRAM

Programs of all national and state medical organizations have been tuned to the national emergency. Medical men have gathered in many parts of our great country during the past year with the single aim and purpose of making medical organization, medical knowledge and medical personnel of greater use to the war effort. In Ohio our Committee on Public Relations and Economics has been active and under its supervision the Bureau of Public Education has carried on educational programs and endeavored to win public co-operation in the effort of the profession to provide adequate medical services under difficult wartime conditions.

I should point out to you that with the adjustment of the Ohio profession to civilian needs in wartime our Committee on Industrial Health, under the leadership of Dr. Barney J. Hein, appointed and organized during the past twelve months to work with the Council on Industrial Health of the American Medical Association and to organize an active industrial health program in the State of Ohio commensurate with the greatly increased activity of industry, has adopted a sound platform of objectives and among these are:

1. To sponsor health education programs for workingmen and their families.
2. To reduce absenteeism in war industries thru health conservation and education programs and improvement of health and medical services within plants.
3. To bring about co-operation between workers and family physicians and community health

agencies and thereby minimize non-occupational sickness and injury.

4. To co-operate with management and labor on health educational activities among workers and to emphasize preventive procedures and the establishment of more healthful working conditions.

5. To provide opportunities for physicians to obtain refresher and post-graduate courses on industrial hygiene and industrial medicine.

THE CHALLENGE WILL BE MET

Medical organization has met and will continue to meet the challenge of adjustment to world conflict. Physicians and surgeons will be found ready and willing in the hospital, the clinic, the home, the office, the health department, in city and country, in induction centers, in the Army, Navy and Marine Corps, with the Air Force and Parachute troops, on sea, land and in the air, in the trench and the fox hole, in the barracks or tents or wherever the sons of Democracy may need them.

The many great charity institutions of our country are still operating and will continue to operate under the direction of America's greatest medical men. The poor of our country, as in the past, will receive gratis the most recent advancements in medical and surgical therapeutics. While there have been shortages in luxuries, food and clothing in the homes of the American poor, there never has been and never will be a shortage of medical care so long as American physicians are permitted to seek out and minister to the less fortunate.

An interesting meeting was held this month in New York and was attended by medical leaders from coast to coast. This gathering was under the auspices of the Carlos Finlay Institute of Americas and was sponsored by the National Physicians Committee, the American Medical Association, the American College of Physicians and the American College of Surgeons in conjunction with drug groups and allied medical workers. The entire meeting was devoted to war and post war medical plans. The profession is making ready to cope with the great problem to be faced by the importation of tropical diseases into the United States. It seems likely that malaria, dysentery, plague, typhus, yellow fever and other tropical scourges will come to us in planes, on boats and in the blood streams of our returning heroes. Medical men in the service and at home are being trained to meet this terrific responsibility.

DANGERS CONFRONT THE PROFESSION

I could not permit this occasion to pass without some reference to the dangers that American medicine faces. I have indicated that in addition to caring for the armed forces and civilians

American Medicine has a third emergency responsibility. Born in Democracy, nourished by the milk of free enterprise and initiative to full growth and greatness, American medicine must divert some part of its energies to the protection of the 'American way of life' and the winning of the peace.

Mr. Paul S. Hoffman, President of the Studebaker Corporation and Chairman of the Committee for Economic Development, speaking before the Toledo Chamber of Commerce on February 16, 1943, said in effect: "Winning the war must have a triple A priority. . . . But it is my studied opinion that if we defer winning the peace until after we have won the war, we may lose the peace." Again he stated: "The peace . . . is lost if in the post war period free society is supplanted by regimentation."

It has been my privilege during the past five years to speak in many cities of our great country on Americanism. I have repeatedly pointed out that many dangers threaten America, including fifth column activities operating under fancy names and supported by Socialists, Communists, Fascists and Nazis and other Un-American groups.

Gradually awakening from our national complacency and lethargy we are coming to realize that the greatest fifth column in the world was not in Holland, Norway or Mexico or South America but in the United States, operating in our schools and colleges, in labor unions, in churches, in city and county, state and national governments. Speaking before the St. Louis Chamber of Commerce in 1938 I stated "that government control of medicine was but a subtle gesture and that the real aim was the socialization of all business enterprises." I have not had reason to change my belief.

I am now convinced that the status of the medical profession is a secondary consideration and that we are face to face with an attempt to replace Americanism and freedom of initiative with National Socialism, using the national emergency as an excuse for radical departure from the ways of democracy.

GOVERNMENT CONTROL A THREAT

In support of this statement I might remind you of the recent suggestions of the National Resources Planning Board which proposals would have received denunciation had they been made in the presence of that great group of Americans who gathered in Philadelphia to write the Constitution of the United States. These Americans sought opportunity for all, not paternalism, not the dole, not socialism, not communism. They had come here to avoid government beauracracy, to escape slavery, to found a government of the people. What would be their comments today if they were forced to listen to the economic pipe

dreams of some of our professional uplifters who are hammering continually at the very foundation of Democracy? What would they say to Mr. Delano? What would they think of the Beveridge plan which was recently called "the plan from the womb to the tomb"?

O. Glenn Saxon, professor of economics at Yale University, said in an article published in the American Legion Magazine, March, 1943: "When the state dominates all factors of production, capital, land and labor, under the guise of economic security, freedom is gone forever."

In adjusting ourselves to wartime needs we physicians must remember that God has endowed us with leadership and that while our first duty is to the sick that we must devote a certain amount of our time to other problems—the problems of government. We must do our part to preserve the "American way of life". In this connection may I call your attention to a recent report submitted to me by Dr. Carll S. Mundy in regard to the activities of the Health Subcommittee of the State Land Use Post War Planning Committee. Dr. Mundy reports that this group has chosen Logan County, Ohio, for the initiation of an exemplary prepay medical service plan for rural people and that the decision was preceded by sharp division of opinion in the committee over the question of State versus Federal control.

MUST START OWN PLANS

Sometime ago the Ohio State Medical Association sponsored an Enabling Act for the purpose of making it possible for county medical societies to start prepayment plans under the control of physicians to extend medical and surgical services at minimum cost to persons in the low income brackets and to make it possible for county and city and township authorities to insure their indigent charges against sickness. Only one group of doctors in Ohio has attempted such a plan and they have met with much opposition from some of their colleagues. I desire as do many of you to continue the practice of medicine and surgery as in the past, but we must realize that many economic changes are likely to be born in the immediate future and that the only answer to those who criticize the present form of medical practice and who champion government control is a prepayment medical plan directed by physicians. It is evident to me that if we fail others will take over and we will then have to satisfy ourselves with the offerings of people who know little of the practice of medicine.

As we depart from this the Ninety-Seventh Annual Meeting of the Ohio State Medical Association, happy in the thought that the medical profession has done and is doing a great job in adjusting itself to the necessities of total war,

let us remember that we have promised to those of our ranks who are making great sacrifices in the service of our country that their "positions and practices will be restored to them after the war in so far as restitution is possible". I imply from this obligation which our council has requested all county medical societies in Ohio to assume that we shall lend our hearts, our souls, our all in the impending battle to save Americanism and that we shall insist that no changes be made in our Democratic foundations and ideals by home front promoters while thousands of young doctors and millions of America's young men are fighting to preserve our sacred heritage in the jungles, on the desert, on the sea and in the air.

FREEDOM MUST BE PRESERVED

Our lend lease program, our rationing program, our thousands of honored dead, our maimed and wounded, our billions upon billions of dollars expended, our dangerous national debt, our congressional medals of honor, our heartaches and sacrifices, our weeping mothers, our young widows, our orphans, our income and victory taxes, the suffering of our sons and brothers for the preservation of individual rights will have been in vain if we permit Democracy to be taken from us in America by those who would use the national emergency as the vehicle through which to accomplish the destruction of freedom and the enslavement of the free.

American medical men and women are in two wars, one against the Axis and not less important an economic war on the home front—the result will be the same if we lose one or both. For years medical leaders have warned against the dangers of socialized medicine and leaders in other professions are beginning to realize that these dangers are not confined to medicine and that medical regimentation is the first step in the downfall of Democracy.

Never in the history of our country has there been a greater need for unity. We in medicine must subjugate our individual desires and aims for the preservation of our profession. Let us map our course as a group and with the surety of the navigator seek our objective. Some of our difficulties have been unsolved and have returned to haunt us because we as medical individualists forget that,

"This is the law of the Jungle—
As old and true as the sky;
And the wolf that shall keep it may prosper,
But the wolf that shall break it must die.
As the creeper that girdles the tree trunks,
The law runneth forward and back—
The strength of the pack is the wolf,
And the strength of the wolf is the pack."

Those of us who have the potentialities of leadership must ever remember that we owe a

great debt to a system of government that has stood the test of more than 150 years. This government needs us now if it is to be preserved. "Carry on" in the name of those who sleep beneath the sod of a hundred consecrated battle fields. We must retain that for which they fought—"The American Way". We must not fail!

More Points Authorized for Those Requiring Invalid Diets

Of interest to all who are concerned with diets for invalids is Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points.

(a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book Two, may apply for additional points. The application must be made, on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot use unrationed foods instead.

(b) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, OPA Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily, until a more adequate form can be gotten out.

It is anticipated that the procedure indicated in Section 2.5 above may be changed somewhat in the future, in which case due notice will be provided.

Dr. Forman, the Editor, Gives Lay Groups Some Timely Advice

Dr. Jonathan Forman, editor of *The Journal*, has made a number of addresses on diet, nutrition and soil conservation during recent weeks, driving home the point in each talk that the health of the people can be improved by well-organized programs to promote personal health

WILL YOU TAKE A NEW LOCATION? IF SO, WRITE DR. CONARD

As a part of their contribution to the war effort, physicians who can be spared from their present locations, who are willing to move to other areas for civilian or industrial practice, and who are ineligible for military service because of age or physical disability should get in touch immediately with **Dr. Robert Conard, chairman, Ohio Procurement and Assignment Committee, 1005 Hartman Theater Building, Columbus, Ohio.**

A letter to Dr. Conard at that address will produce a response, constituting a list of communities and industries where the services of a physician can be utilized to advantage. The Procurement and Assignment Service believes the problem of re-distributing physicians on the home front can be met through voluntary methods. Certainly that is the way the medical profession wants it solved and assuredly that is the method which will be most beneficial to the public generally.

and hygiene whereas compulsory sickness insurance will not improve health or reduce the costs of medical care but, on the contrary, will increase costs without producing favorable results. Dr. Forman addressed the following organizations: Columbus Rotary Club; Woman's Auxiliary to the Summit County Medical Society; Young Men's Forum and the Women's Guild, First Community Church, Columbus; Dublin Men's Goodwill Club; Franklin County Garden Council; Clinton County Medical Society and guests from four surrounding counties; Grandview Parent-Teacher Association; The Garden Club of America, New York City; Dublin High School; Assembly Center, F. & R. Lazarus & Co. store, Columbus; and Discussion Group, Tenth Avenue Baptist Church, Columbus.

In the April issue, *The Journal* was in error in stating that Dr. B. Bernard Caplan had been appointed chief psychiatrist of the State Bureau of Juvenile Research. Dr. Caplan is not chief psychiatrist but a member of the psychiatric staff at the Bureau.

INTRODUCING . . .

Four New Members of The Council of the Ohio State Medical Association Who Were Elected at the Recent Annual Meeting in Columbus

BELIEVING that the membership of the State Association generally is interested in knowing about the professional attainments and organization experience of the officers and councilors of the Association, *The Journal* is following its custom of presenting the pictures and biographical data of the four new members of The Council, elected at the Ninety-Seventh Annual Meeting in Columbus, March 30 and 31.

* * *

Dr. Harry E. LeFever, Columbus, was elected by the House of Delegates as Treasurer of the State Association, for a term of three years, succeeding Dr. James A. Beer, Columbus, who had served the maximum period of two three-year terms. As an officer, Dr. LeFever becomes a member of The Council. He is a graduate of Ohio University in 1921, and of Jefferson Medical College in 1925 and is at present assistant professor of surgery at Ohio State University College of Medicine and head of the Department of Neurological Surgery, University Hospital, Columbus.

Dr. LeFever is a fellow of the American Medical Association and the American College of Surgeons; diplomate of the American Board of Neurology and the American Board of Neurological Surgery, and member of the Central Neuropsychiatric Association. He is a former president of the Columbus Academy of Medicine and Columbus Bureau of Medical Economics, and has served as a delegate from the Columbus Academy in the House of Delegates of the State Association.

The new Treasurer is a member of the Masonic Lodge and of the following fraternities: Phi Beta Kappa, Phi Delta Theta and Nu Sigma Nu. He holds the rank of Lt. Comdr. in the United States Navy Medical Reserve Corps.

Dr. LeFever is married and the father of two children, residing at 2092 Yorkshire Road, Upper Arlington, Columbus. He is the son of Dr. E. LeFever, Glouster, veteran member of the Ohio Legislature who was recently honored by the

General Assembly for having served longer than any person ever elected to that body.

* * *

Dr. Ernest O. Swartz, Cincinnati, is the new Councilor for the First District, succeeding Dr. L. Howard Schriver, who was elected President-Elect of the State Association. A native of Loudonville, Ashland County, Dr. Swartz was educated in the public schools of Loudonville, Portsmouth and Kings Mills. After graduating from high school at the latter city, he received his pre-medical education at Doane Academy and Denison University, Granville, and in 1905 received his medical degree from the Medical College of Ohio, Cincinnati (now the University of Cincinnati College of Medicine).

After taking an internship and residency at the Cincinnati General Hospital, he entered general practice in Cincinnati. In 1917, Dr. Swartz entered Johns Hopkins University School of Medicine where he took a year's graduate work in urology and from 1918 to 1921 was assistant in urology at the Brady Urological Clinic, Baltimore. He limits his practice exclusively to urology at present.

Dr. Swartz is a former president of the Cincinnati Academy of Medicine and for the past five years has been a member of the Committee on Public Relations and Economics of the State Association, also serving as a member of the House of Delegates of the State Association and an alternate delegate to the American Medical Association. He also is a member of the co-



Dr. LeFever



Dr. Swartz



Dr. Messenger



Dr. Harding

ordinating committee of the Cincinnati Public Health Federation.

Attending urologist at four Cincinnati hospitals and director of urology at two others, Dr. Swartz is a fellow of the American Medical Association, American Urological Association and American College of Surgeons, and a diplomate of the American Board of Urology. He is a member of various Masonic bodies. Dr. and Mrs. Swartz reside at 3627 Davenant Avenue, Cincinnati. A son is a junior at Northwestern University Medical School.

* * *

Dr. Harold C. Messenger, Xenia, succeeds Dr. D. W. Hogue, Springfield, as Councilor of the Second District, Dr. Hogue having served the maximum period of three terms as a member of The Council. Son of the late Dr. A. C. Messenger for many years one of the leaders of the medical profession in Ohio and an active worker in the State Association, Dr. Messenger completed his pre-medical training at Denison University and in 1914 graduated from the Medico-Chirurgical College of Philadelphia. Following an internship at the Miami Valley Hospital, Dayton, and postgraduate work in medicine and pediatrics at New York City, he entered private practice at Xenia, where he also is a member of the pediatrics staff of the Ohio Soldiers' and Sailors' Orphans' Home.

Dr. Messenger is a former president and secretary of the Greene County Medical Society and served for eight years as a delegate from that society to the State Association. Also, he is a past president of the Second Councilor District Society. Dr. Messenger is a past commander of the American Legion Post No. 95; member of the Board of Trustees of the Presbyterian Church; vice president and director of the Xenia Citizens' National Bank and chairman of Selective Service Board No. 1, Greene County. A member of the Phi Gamma Delta and Alpha Kappa Kappa fraternities and various Masonic bodies, Dr. Messenger also is a fellow of the American Medical Association. Dr. and Mrs. Messenger have two sons, one of whom is a junior medical student at the University of Rochester; the younger, a student at Yale University.

* * *

Dr. George T. Harding, Columbus, was elected Councilor of the Tenth Councilor District. He succeeds Dr. Harve M. Clodfelter, Columbus, now on active duty as a Lt. Comdr., in the Navy Medical Corps. Born in Columbus and educated in the public schools of Columbus and Worthington, Dr. Harding received his pre-medical education at Washington Missionary College, Washington, D.C., and Ohio State University, receiving his B.A. degree from the former school in 1923. From 1923 to 1927 he attended the College of Medical Evangelists, Los Angeles, receiv-

ing his M.D. degree from that college after serving an internship at Grant Hospital, Columbus.

Dr. Harding, after obtaining his medical degree, became associated with his father, the late Dr. George T. Harding, Jr., neuropsychiatrist and founder of the Harding Sanitarium, Worthington, which is at present owned and operated by himself and his brother, Dr. Warren G. Harding. Members of the sanitarium staff include Dr. Ruth Harding Evans, his sister, and her husband, Dr. Harrison Evans, and his sister-in-law, Dr. Frances Keller Harding, wife of Dr. Warren G. Harding. Dr. Evans is now on active military duty as a captain in the Army Medical Corps. A younger brother, Dr. Charles W. Harding, is at present completing his internship at Children's Hospital, Columbus, and will enter active service in the Navy Medical Corps in July. His grandparents, the late Dr. and Mrs. George T. Harding, the latter also a physician, practiced medicine in Marion for many years.

In 1929, Dr. Harding became assistant physician at the Columbus State Hospital and later took postgraduate work in neurology at Columbia University. He has been a member of the faculty at the Ohio State University College of Medicine for 15 years, at present holding the position of clinical professor of psychiatry.

Dr. Harding is a fellow of the American College of Physicians, American Medical Association, the American Psychiatric Association, and a member of the Central Neuropsychiatric Association. He is at present the president of the Columbus Academy of Medicine, being the second George Tryon Harding to hold that office, and has served in the House of Delegates of the State Association. He has been serving as a member of The Council since September, 1942, when he was designated by The Council to fill the vacancy created when Dr. Clodfelter entered military service. Dr. and Mrs. Harding and their four children reside at Worthington.

Course in Electrocardiography

An intensive course in electrocardiography is being offered by the Cardiovascular Department of Michael Reese Hospital, Chicago, August 16-28, under the direction of Dr. Louis N. Katz, director of cardiovascular research. It will be a full-time course, open to both the beginning and advanced student in electrocardiography. The course will be individualized so that at the end of the period each student will be capable of taking and properly interpreting routine electrocardiograms. In order to accomplish this purpose, the class will be limited in number. It is imperative, therefore, that reservations be made early. An hourly program can be obtained by addressing the Michael Reese Hospital, Cardiovascular Department, 29th and Ellis Ave., Chicago, Ill.

Proceedings of The Council

Various Matters of Business Transacted at Meetings Held During Ninety-Seventh Annual Meeting; Special Committees Named

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Tuesday afternoon, March 30, 1943, at the Neil House, Columbus, during the 97th Annual Meeting of the Ohio State Medical Association. All members of The Council, except Dr. McNamee and Dr. Swan, were present. The meeting was attended also by Dr. Elmer L. Henderson, Louisville, Ky., member of the Board of Trustees of the American Medical Association; and Dr. H. M. Platter, Columbus, Secretary of the State Medical Board.

On motion by Dr. Beer, seconded by Dr. Hogue and carried, the minutes of the December 13, 1942, and February 21, 1943, meetings of The Council were approved.

MEMBERSHIP STATISTICS

The Executive Secretary reported membership statistics as follows: Total membership as of March 30, 1943—6,470 of whom 1,693 were military members; compared to total members of 6,726 as of December 31, 1942, of whom 1,373 were military members.

Following reports by members of The Council, there was a brief review of the Annual Meeting Program starting at 4 P.M., on the same afternoon.

The Annual Audit and Financial Report for the year, 1942, based on the audit made by Keller, Kirschner, Martin and Clinger, certified public accountants, and including the Treasurer's Report, (published in the March issue of *The Journal*) were accepted and approved on motion by Dr. Knoble, seconded by Dr. Lincke and carried.

LEGISLATIVE DEVELOPMENTS

The Executive Secretary reviewed legislative developments with particular reference to House Bill 78, Christian Science Bill, defeated by the House of Representatives; and Sub. House Bill 112, the agreed Osteopathic Bill. On motion by Dr. Sherburne, seconded by Dr. Knoble and carried. The Council expressed congratulations and appreciation to the Legislative Committee and the Headquarters Office staff for their work to date on legislative matters.

The resignation of Mr. Richard A. Aszling, director of the Bureau of Public Education, effective March 15, was accepted with regret and with an expression of sincere appreciation and best wishes for the future, on motion by Dr. Paryzek, seconded by Dr. Hogue and carried.

POLICY ON EMERGENCY CLINIC ADOPTED

A statement of policy, adopted by the Committee on Public Relations and Economics and submitted to The Council for action, relating to a proposed ambulatory and emergency clinic to be established in a Cleveland hospital was approved and adopted on motion by Dr. Sherburne, seconded by Dr. Schriver and carried. The statement disapproved the proposal on the grounds that it contains elements which are potentially dangerous and which would tend to encourage abuses, including unethical and unprofessional practices on the part of physicians participating. The Executive Secretary was instructed to transmit this action of The Council to the Board of Directors of the Cleveland Academy of Medicine, which had submitted it to The Council for review and action.

A report of the Committee on Industrial Health was read by the Executive Secretary and, on motion by Dr. Schriver, seconded by Dr. Harding and carried, it was approved.

Minutes of the meeting of the Procurement and Assignment Committee, held on January 10, 1943, were approved on motion by Dr. Lincke, seconded by Dr. Noble and carried.

NEW ORGANIZATION NOT APPROVED

A communication requesting the Ohio State Medical Association to approve and actively participate in a proposed Women's Health League of America, was read and thoroughly discussed. On motion by Dr. Beer, seconded by Dr. Micklethwaite and carried, The Council voted to not approve the organization believing that there are a sufficient number of existing organizations to carry on public health education activities.

A communication from a physician regarding the failure of a county medical society to act favorably on his application for membership was referred to the Judicial and Professional Relations Committee on motion by Dr. Hogue, seconded by Dr. Rutledge and carried.

ACTIVE SUPPORT PROMISED

Another communication from Dr. Carll S. Mundy, Toledo, representative of the Ohio State Medical Association on the State Land-Use Post-War Planning Sub-Committee on Health, was read and discussed by The Council. On motion by Dr. Brindley, seconded by Dr. Schriver and carried, The Council again expressed appreciation to Dr. Mundy for his excellent work and assured him of active support, as well as active

support to the Logan County Medical Society, in carrying on negotiations with representatives of the Land-Use Planning Sub-Committee, who are making a survey of medical and health conditions in that county.

The Council, on **motion** by Dr. Knoble, seconded by Dr. Brindley and **carried**, **approved** a resolution to be submitted to the House of Delegates at its First Session during this Annual Meeting. The resolution recommended to the House of Delegates that it instruct Ohio's delegates to the American Medical Association to request the House of Delegates of the A.M.A. to authorize the establishment of an executive office of the American Medical Association in Washington in charge of a full-time director directly responsible to the Board of Trustees of the A.M.A.

OLD AGE PENSION QUESTION

A resolution, asking for legislative and administrative changes in the Old Age Pension System to permit the payment direct of physicians for medical care of old age pensioners, submitted by the Guernsey County Medical Society, was discussed. On **motion** by Dr. Sherburne, seconded by Dr. Lincke and **carried**, the communication was referred to the Committee on Public Relations and Economics for study and a report back to The Council.

A communication, requesting the Ohio State Medical Association to support a bill in Congress to permit the commissioning of women physicians in the Army Medical Corps and accompanied by a resolution, was referred to the House of Delegates for consideration on **motion** by Dr. Sherburne, seconded by Dr. Schriver and **carried**.

DR. McCORMICK CONGRATULATED

On **motion** by Dr. Lincke, seconded by Dr. Mickelthwaite and **carried**, The Council expressed to Dr. McCormick, the retiring President, its appreciation for his excellent services during the past year and for the kindly and courteous treatment he had accorded all members of The Council.

By rising vote The Council **adopted** a **motion** by Dr. Sherburne, seconded by Dr. Paryzek and **carried**, authorizing the President to appoint a committee to prepare a resolution in tribute to the late Dr. Leslie L. Bigelow, former President of the Ohio State Medical Association, and to transmit a copy of such resolution to Mrs. Bigelow. In compliance with the motion, Dr. McCormick appointed Dr. Sherburne, Dr. Harding and Dr. H. M. Platter as members of the committee.

The Council then recessed until 4 P.M. to meet with the House of Delegates.

Attest: CHARLES S. NELSON,
Executive Secretary.

SPECIAL MEETING OF THE COUNCIL

A special meeting of The Council was held at the conclusion of the Second Session of the House of Delegates on Wednesday morning, March 31, 1943.

Dr. Sherburne, the President, announced the appointment of the following special committees which, on **motion** by Dr. Swartz, seconded by Dr. Knoble and **carried**, were **approved**:

Auditing and Appropriations—Dr. Edgar P. McNamee, Cleveland, chairman; Dr. R. L. Rutledge, Alliance, and Dr. Carl A. Lincke, Carrollton.

Woman's Auxiliary Advisory Committee—Dr. R. L. Rutledge, Alliance, chairman; Dr. A. A. Brindley, Toledo, and Dr. George T. Harding, Columbus.

War Participation Committee (Ohio Procurement and Assignment Committee)—Dr. Robert Conard, Wilmington, chairman; First District—Dr. Chas. E. Hauser, Cincinnati; Second District—Dr. Merrill D. Prugh, Dayton; Third District—Dr. Frank M. Wiseley, Findlay; Fourth District—Dr. Dale Wilson, Toledo; Fifth District—Dr. James N. Wychgel, Cleveland; Sixth District—Dr. Charles A. LaMont, Canton; Seventh District—Dr. Carl A. Lincke, Carrollton; Eighth District—Dr. Blaine R. Goldsberry, Athens; Ninth District—Dr. Harry F. Rapp, Portsmouth; Tenth District—Dr. John H. Mitchell, Columbus; Eleventh District—Dr. Charles R. Keller, Mansfield.

Industrial Health—Dr. Barney J. Hein, Toledo, chairman; Dr. J. Craig Bowman, Upper Sandusky; Dr. D. W. Heusinkveld, Cincinnati; Dr. H. M. Platter, Columbus, Dr. Cecil Striker, Cincinnati; Dr. George F. Sykes, Cleveland; Dr. O. J. Walker, Youngstown; Dr. Ralph M. Watkins, Cleveland; Dr. Carl A. Wilzbach, Cincinnati; President, President-Elect, and Past-President, members *ex officio*.

Dr. Sherburne requested the members of The Council to keep in very close touch with their county societies as many of the societies are not holding meetings as frequently as under normal conditions.

Before The Council adjourned, it **adopted** a **motion** by Dr. Brindley, seconded by Dr. Schriver, again expressing appreciation to Dr. McCormick for his active interest on behalf of the medical profession, not only in Ohio but also throughout the nation, as a member of the Board of Directors of the National Physicians Committee.

The Council then adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Streamlined Annual Meeting and War Conference of State Association Well-Attended; Industrial and Home-Front Medical and Health Problems Are Discussed

OVER 700 physicians and guests attended the Ninety-Seventh Annual Meeting of the Ohio State Medical Association at the Neil House, Columbus, Tuesday and Wednesday, March 30-31.

Strictly a war conference, with the theme "Medicine on the Home Front," the scientific program was streamlined to a one-day of general sessions, with the usual section meetings, quiz discussions, continuous motion picture program, and scientific and technical exhibits omitted.

The meeting opened with the first session of the House of Delegates at 4 o'clock, Tuesday afternoon. Proceedings of that session and the concluding one on Wednesday morning appear elsewhere in this issue of *The Journal*.

DINNER ATTENDED BY 250

The Association was host at a dinner on Tuesday evening to approximately 250 guests, including presidents, secretary-treasurers, and chairmen of War Participation Committee of county medical societies; members of the House of Delegates and members of the War Participation Committee of the State Association.

A symposium on "Medicine and the War" followed the dinner. It was presented by the following guest participants: Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Committee for Physicians and chairman of the War Participation Committee of the Ohio State Medical Association; Dr. Elmer L. Henderson, Louisville, Ky., chairman, Fifth Service Command Procurement and Assignment Service and member of the Board of Trustees, American Medical Association; Dr. Harold S. Diehl, Minneapolis, member, Directing Board, Procurement and Assignment Service, War Manpower Commission and dean, University of Minnesota Medical School; Dr. Walter F. Donaldson, Pittsburgh, chairman, War Participation Committee, American Medical Association, and secretary of the Pennsylvania State Medical Society.

Dr. Edward J. McCormick, Toledo, President of the Ohio State Medical Association, was the toastmaster at the dinner. Also seated at the speakers' table were the following honored guests: Dr. C. C. Sherburne, Columbus, President-Elect of the State Association; Dr. Harry V. Paryzek, Cleveland, Past-President of the Association; Colonel E. C. Jones, Columbus, Surgeon for the Fifth Service Command; Colonel Howard E. Boucher, Columbus, chief of the

Medical Division, State Selective Service; Lt. Col. Theodore D. Palmer, Columbus, chief of Office Procurement for the Fifth Service Command; Lt. Col. Arthur J. Redland, Columbus, Assistant Surgeon, Fifth Service Command; Dr. William S. Keller, Cleveland, Senior Surgeon, U.S.P.H.S., Regional Medical Officer Fifth Region, Office of Civilian Defense; Dr. R. H. Markwith, Columbus, State Director of Health, and Dr. Estella Ford Warner, Senior Surgeon, U.S.P.H.S., Chicago, Ill.

At the conclusion of the evening program, members of the Association were guests of the Woman's Auxiliary at an informal reception in the Hall of Mirrors in the Deshler-Wallick Hotel.

SYMPOSIUM ON INDUSTRIAL HEALTH

The Wednesday morning session was devoted to industrial health, the theme being "Keeping Them Working." Dr. Christopher Leggo, Columbus Surgeon (R) U.S.P.H.S., and director, Industrial Hygiene Service, State Department of Health, discussed "Present Day Influences in Industrial Health." Dr. Carl M. Peterson, Chicago, secretary of the Council on Industrial Health of the American Medical Association, spoke on "Essentials and Organization of Industrial Health Services."

An address on "Women in Industry—Present and Future Problems," was made by Dr. H. Close Hesseltine, Chicago, associate professor of obstetrics and gynecology, University of Chicago, and chairman of the Committee on Health of Women in Industry, Section on Obstetrics and Gynecology of the American Medical Association. The closing address of the morning session was made by Dr. John H. Foulger, Wilmington, Del., director of the Haskell Laboratory of Industrial Toxicology and associate professor of industrial health at the Medical College of Virginia. His subject was: "Preventive Medicine in Industry".

HOME FRONT PROBLEMS DISCUSSED

"Keeping Them Healthy," was the theme of the afternoon session, which was devoted to civilian medical problems. Dr. Tom D. Spies, Cincinnati and Birmingham, Ala., director, Nutrition Clinic, Hillman Hospital, Birmingham, and associate professor of medicine, University of Cincinnati College of Medicine, and member of the Council on Foods and Nutrition of the American Medical Association, spoke on "Importance of Optimum Nutrition for the Civilian Population in War-time." Dr. John A. Toomey, Cleveland, pro-

fessor of contagious diseases, Western Reserve University School of Medicine, talked about the "Importance of Immunization of the Civilian Population in Wartime." The meeting concluded with an address by Dr. McCormick on the "Adjustment of the Physician to Civilian Needs in Wartime."

If feasible, *The Journal* will publish the papers presented in future issues.

Despite labor shortage and food rationing, physical arrangements for the meeting were handled by the Neil House management in its customary efficient and hospitable style.

ATTENDANCE FIGURES

The following tabulations show the registration figures for the past 25 succeeding Annual Meetings and the number of members from each county who registered at the 1943 meeting, compared to the number of members in the county on December 31, 1942, and March 30, 1943:

ANNUAL MEETING REGISTRATION FOR 1919-1943 INCLUSIVE					
Year	Place	Members	Out-of-State Physicians	Guests	Technical Exhibitors
1919	Columbus	1173	10	264	92
1920	Toledo	810	17	105	80
1921	Columbus	1275	28	204	96
1922	Cincinnati	1066	21	184	70
1923	Dayton	1117	19	202	76
1924	Cleveland	1301	13	180	109
1925	Columbus	1204	17	361	107
1926	Toledo	903	19	120	83
1927	Columbus	1320	17	286	82
1928	Cincinnati	916	27	92	80
1929	Cleveland	1231	15	249	124
1930	Columbus	1241	13	435	86
1931	Toledo	826	13	198	50
1932	Dayton	978	2	201	45
1933	Akron	858	6	160	25
1934	Columbus	1069	9	410	51
1935	Cincinnati	973	17	197	84
1936	Cleveland	1099	14	563	137
1937	Dayton	1103	18	366	64
1938	Columbus	1330	15	619	104
1939	Toledo	1056	15	271	84
1940	Cincinnati	1126	26	323	114
1941	Cleveland—Joint Meeting with A.M.A.				
1942	Columbus	1221	13	527	119
1943	Columbus	544	13	160	—

Registration, 1943 Annual Meeting, By
Counties and Membership Data

County	Total Membership		Annual Meeting Registration
	Dec. 31, 1942	March 30, 1943	
Adams	16	17	3
Allen	80	74	10
Ashland	25	24	3
Ashtabula	54	51	2
Athens	33	33	9
Auglaize	28	27	4
Belmont	57	56	5
Brown	4	4	—
Butler	92	92	6
Carroll	8	9	2
Champaign	19	19	1
Clark	84	75	4
Clermont	26	25	2
Clinton	20	19	4
Columbiana	62	56	2
Coshocton	23	24	7
Crawford	33	30	6

County	Total Membership		Annual Meeting Registration
	Dec. 31, 1942	March 30, 1943	
Cuyahoga	1337	1325	31
Darke	28	27	2
Defiance	16	15	1
Delaware	26	24	4
Erie	43	41	4
Fairfield	41	41	6
Fayette	14	12	2
Franklin	562	535	124
Fulton	20	19	—
Gallia	21	22	—
Geauga	12	12	1
Greene	36	32	5
Guernsey	27	26	2
Hamilton	848	813	27
Hancock	46	42	3
Hardin	21	20	1
Harrison	15	14	2
Henry	16	16	2
Highland	25	24	5
Hocking	11	13	4
Holmes	8	8	4
Huron	26	27	3
Jackson	10	9	2
Jefferson	65	66	2
Knox	32	30	3
Lake	34	34	1
Lawrence	28	23	2
Licking	55	53	11
Logan	26	25	2
Lorain	105	104	5
Lucas	371	349	14
Madison	16	17	4
Mahoning	235	220	12
Marion	47	45	7
Medina	30	30	6
Meigs	12	12	1
Mercer	18	18	—
Miami	49	46	8
Monroe	5	5	—
Montgomery	347	319	22
Morgan	9	8	3
Morrow	8	8	1
Muskingum	56	50	8
Ottawa	20	18	1
Paulding	14	14	1
Perry	18	18	5
Pickaway	16	12	4
Pike	8	8	2
Portage	27	27	2
Preble	13	12	2
Putnam	21	19	2
Richland	81	79	8
Ross	45	42	7
Sandusky	40	30	1
Scioto	68	67	12
Seneca	39	38	3
Shelby	23	20	1
Stark	223	216	19
Summit	317	310	19
Trumbull	77	77	3
Tuscarawas	54	51	6
Union	16	14	9
Van Wert	21	21	3
Vinton	4	4	1
Warren	19	17	—
Washington	31	30	4
Wayne	44	45	3
Williams	19	19	3
Wood	38	37	2
Wyandot	10	13	4
Totals	6,726	6,470	544

Names of Those Who Registered

Following are the names of physicians who registered at the Ninety-Seventh Annual Meeting, Columbus, March 30 and 31, 1943, some of whom are medical officers in the Army, Navy or other government services who are stationed near Columbus or who were home on leave at the time of the meeting:

Out-of-State—Harold S. Diehl, Minneapolis, Minnesota; Walter F. Donaldson, Pittsburgh, Pennsylvania; John H. Foulger, Wilmington, Delaware; E. L. Henderson, Louisville, Kentucky; H. Close Hesseltine, Chicago, Illinois; C. M. Peterson, Chicago, Illinois; Tom D. Spies, Birm-

ingham, Alabama; Estella Ford Warner, Chicago, Illinois.

Adams County—R. B. Ellison, S. J. Ellison, Hazel L. Sproull. **Allen County**—Chester Baderscher, Harvey L. Basinger, W. H. Beery, J. R. Johnson, H. H. Brueckner, M. D. Soash, H. L. Stelzer, J. R. Tillotson, B. W. Travis, Esty C. Yingling. **Ashland County**—P. E. Decatur, Herman M. Gunn, M. D. Shilling. **Ashtabula County**—P. J. Collander, R. B. Wynkoop. **Athens County**—Benedict B. Backley, A. A. Baldwin, C. H. Creed, Byron Danford, C. R. Hoskins, E. LeFever, T. H. Morgan, J. L. Webb, E. I. Stanley. **Auglaize County**—R. C. Hunter, Elizabeth Y. Kuffner, Guy E. Noble, T. H. Will.

Belmont County—Edward V. Arbaugh, Jr., W. L. Davis, D. O. Sheppard, F. P. Sutherland, R. H. Wilson. **Butler County**—C. T. Atkinson, Garret J. Boone, Fred Brosius, Mabel E. Gardner, William H. Henry, C. I. Stafford. **Carroll County**—Lewis W. Cellio, Carl A. Lincke.

Champaign County—D. C. Houser. **Clark County**—D. W. Hogue, G. M. Lane, Harry S. Milligan, Will Ultes. **Clermont County**—J. M. Coleman, Allan B. Rapp. **Clinton County**—Robert Conard, R. W. DeCrow, Kelley Hale, William L. Wead. **Columbiana County**—R. T. Holzbach, E. C. Louthan. **Coshocton County**—Floyd W. Craig, R. E. Hopkins, S. B. Kistler, H. W. Lear, D. S. McDill, A. P. Magness, J. G. Smailes. **Crawford County**—C. Adams, Charles Griebeling, Mart L. Helfrich, C. A. Lingenfelter, R. M. Malone, G. T. Wasson.

Cleveland and Cuyahoga County—Richard P. Bell, Abram B. Bruner, Mr. H. Van Y. Caldwell, R. B. Crawford, I. H. Einsel, Thomas H. Einsel, R. C. Engel, N. L. Farinacci, Wm. P. Garver, Bruno Gebhart, W. E. Hill, C. E. Kinney, Sydney Klein, Harold J. Knapp, F. A. LeFevre, M. Paul Motto, M. F. Oman, L. E. Papurt, Harry V. Paryzek, Faith W. Reed, Rudolph S. Reich, Harry C. Rosenberger, B. B. Sankey, William Eggers Smith, Dwight S. Spreng, George F. Sykes, John A. Toomey, John T. Vitkus, R. J. Whitacre, Mr. Adrian Wychgel, James N. Wychgel.

Darke County—W. D. Bishop, B. F. Metcalf. **Defiance County**—D. J. Slosser. **Delaware County**—W. E. Borden, Floyd V. Miller, F. M. Stratton, Elizabeth Workman. **Erie County**—A. R. Grier-son, V. A. Killoran, Ross M. Knoble, E. J. Meckstroth. **Fairfield County**—H. C. Ashton, Carl W. Brown, W. R. Coleman, C. H. Hamilton, M. E. Nichols, E. B. Roller. **Fayette County**—W. D. Maag, K. R. Teachnor.

Columbus and Franklin County—B. W. Abramson, Luther W. Adams, K. H. Armen, Ben Arnoff, F. P. Atkinson, H. M. Austin, Charles W. Barch, J. F. Bateman, E. H. Baxter, James A. Beer, Louis C. Benkert, G. H. Bonnell, R. W. Bonnell, H. E. Boucher, Wayne Brehm, Grace Nunemaker Brown, Olan P. Burt, Alice M. Bustin, O. S. Canright, Everett F. Clouse, Kenneth A. Clouse, C. W. Conley, Horace B. Davidson, Francis W. Davis, Charles A. Doan, A. Henry Dunn, Joseph M. Dunn, R. R. Durant, Lt. Phane Durey, Samuel D. Edelman, E. J. Emerick, Earl W. Euans, Dorothy Falkenstein, Roswell S. Fidler, Jerome Fisher.

Jonathan Forman, Huston F. Fulton, F. E. Ginder, S. J. Goodman, Emilie Gorrell, Mary A. Graber, F. C. Haney, Frances Keller Harding, George T. Harding, Warren G. Harding, 2nd., Harold K. Harris, I. B. Harris, Emery R. Hayhurst, George J. Heer, Arthur G. Helmick, J. E. Hoberg, R. B. Hoover, S. M. Horen, R. B. Hudson,

Robert M. Inglis, W. D. Inglis, Walter A. Jaquith, L. N. Jentgen, O. W. Jepsen, E. C. Jones, A. L. Kefauver, G. W. Keil, Hedwig D. Lang, R. A. Laughlin, H. E. LeFever, Christopher Leggo, Timothy Lehmann, W. E. Lloyd, Mr. S. R. Mauck.

R. H. Markwith, Olin R. Martin, A. B. McConagha, A. F. McCoy, Charles A. McDonald, Charles W. McGavran, W. B. Merrill, Myron D. Miller, W. H. Miller, John H. Mitchell, W. B. Morrison, G. B. Nessley, W. E. Obetz, Anton W. Oelgoetz, M. W. Palestrant, Dwight M. Palmer, Paul W. Palmer, Lt. Col. T. D. Palmer, John W. Parker, Charles W. Pavey, G. W. Pelteson, H. M. Platter, C. D. Postle, Joseph Price, Dale E. Putnam, Lt. Col. Arthur J. Redland, Edw. Reinert, J. A. Riebel, Frank Riebel, C. C. Ross, Roy J. Secrest, C. E. Sharp, I. W. Sherwood, Wynne M. Silbernagel, Clayton S. Smith, George H. Snyder, Susan P. Souther, Edwin J. Stedem, W. A. Stoutenborough, Sygmund J. Telerski, John M. Thomas, E. A. Thrall, J. H. J. Upham, C. M. Valentine, Thos. Wangler, James H. Warren, Frank W. Watson, Fred H. Weber, M. Grace Welch, Harry O. Whitaker, J. W. Wilce, J. C. Williamson, George W. Willard, H. E. Wilson, Capt. Rex H. Wilson, Lorne W. Yule.

Geauga County—W. A. Reed. **Greene County**—C. G. McPherson, H. C. Messenger, Arthur B. Ream, Geneva Shong Rothemund, A. N. Vandeman. **Guernsey County**—C. A. Craig, Fred W. Lane.

Cincinnati and Hamilton County—E. R. Bader, James H. Bennett, Eugene B. Ferris, C. E. Hauser, Louis G. Herrmann, D. W. Heusinkveld, Kenneth F. Higgins, Lloyd B. Johnston, William S. Keller, Joseph Lindner, Donald J. Lyle, F. M. Oxley, Dale P. Osborn, Wm. H. Rohdenburg, Robert C. Rothenberg, Harold S. Schiro, L. Howard Schriver, Parke G. Smith, H. A. Springer, Clifford J. Straehley, E. O. Swartz, Emil R. Swepton, Mr. R. W. Swink, W. S. Terwilliger, T. H. Vinke, Carl A. Wilzbach, Samuel Zielonka.

Hancock County—O. P. Klotz, E. E. Rakestraw, Frank M. Wiseley. **Hardin County**—H. E. Gibson. **Harrison County**—C. F. Goll, E. L. Miller. **Henry County**—J. R. Bolles, B. L. Johnson. **Highland County**—J. C. Bohl, W. M. Hoyt, H. H. Lowe, W. C. Martindill, W. B. Roads. **Hocking County**—M. H. Cherrington, J. S. Cherrington, C. T. Grattidge, H. G. Southard. **Holmes County**—A. T. Cole, A. J. Earney, J. C. Elder, N. P. Stauffer. **Huron County**—W. W. Lawrence, George F. Linn, John A. Sipher.

Jackson County—C. C. Fitzpatrick, J. L. Frazer. **Jefferson County**—Carl Goehring, S. J. Podlewski. **Knox County**—James F. Lee, O. W. Rapp, J. Shamansky. **Lake County**—V. N. Marsh. **Lawrence County**—L. S. Dillon, W. Wilson Lynd. **Licking County**—James F. Busby, Geraldine H. Crocker, J. N. Cross, C. A. Day, C. J. Dillon, R. W. Jones, R. C. Mauger, H. R. Neeland, Ralph E. Pickett, R. G. Plummer, A. J. Tronstein. **Logan County**—C. L. Barrett, L. E. Traul. **Lorain County**—S. V. Burley, Paul C. Colegrove, Virgil C. Hart, Charles R. Meek, L. E. Kerr.

Toledo and Lucas County—A. A. Brindley, B. G. Chollett, Mr. George W. Cooley, John Gersten, B. J. Hein, C. E. Hufford, Rollin Kuebel, Edward J. McCormick, W. H. Meffley, L. D. Miller, Leopold W. Siberd, Reynold A. Tank, Dale Wilson, R. C. Young. **Madison County**—W. A. Holman, T. R. Laughbaum, J. M. Morse, G. C. Scheetz.

Youngstown and Mahoning County—E. C. Baker, J. A. Heeley, J. N. McCann, H. P.

McGregor, G. M. McKelvey, R. R. Morrall, E. H. Nagel, F. F. Piercy, Edward J. Reilly, A. B. Sherk, Wm. M. Skipp, Carl H. Weidenmier. **Marion County**—C. L. Baker, J. G. McNamara, H. K. Mouser, B. D. Osborn, F. L. Thomas, H. S. Rhu, N. Sifrit. **Medina County**—E. L. Crum, R. F. Fasoli, N. J. M. Klotz, R. L. Mansell, Frank C. Reutter, R. A. Styblo. **Meigs County**—F. M. Cluff. **Miami County**—John F. Beachler, Russell Gardner, Burton M. Hogle, G. E. McCullough, E. T. Pearson, E. G. Puterbaugh, Harry Wain, G. A. Woodhouse.

Dayton and Montgomery County—Roy S. Binkley, A. T. Bowers, Robert E. Boswell, Herbert L. Brumbaugh, C. E. Burgett, H. W. Burnett, A. W. Carley, A. D. Cook, R. Dean Dooley, M. R. Haley, H. C. Hanning, J. Edward Hershberger, H. F. Hilty, V. H. Mahan, George A. Nicoll, Merrill D. Prugh, Wallace E. Prugh, R. E. Pumphrey, Ned Shepard, B. F. Suffron, Charles W. Thomas, J. F. Wuist.

Morgan County—Claude V. Davis, Clarence E. Northrup, II, C. E. Northrup. **Morrow County**—F. M. Hartsook. **Muskingum County**—S. P. Carter, William B. Faircloth, Beatrice T. Hagen, Herman B. Kaufman, M. A. Loebell, Robert S. Martin, D. K. Matthews, John M. McCleery. **Ottawa County**—Wm. R. Gibson. **Paulding County**—D. E. Farling. **Perry County**—James Miller, R. W. Miller, H. F. Minshull, W. D. Porterfield, Harry W. Shaw. **Pickaway County**—A. D. Blackburn, D. V. Courtright, G. E. Gardner, V. D. Kerns. **Pike County**—R. M. Andre, I. P. Seiler. **Portage County**—John R. Turner, Edgar M. Kauffman. **Preble County**—Carle W. Beane, G. W. Flory. **Putnam County**—Carl N. Zinsmeister, H. A. Neiswander.

Richland County—Carl R. Damron, Edward D. Dowds, Charles R. Keller, L. C. Nigh, O. H. Schettler, J. L. Stevens, D. A. Weir, Wm. B. Wild. **Ross County**—George W. Cooper, Theo. Cutright, Ralph W. Holmes, O. L. Iden, David A. Perrin, M. D. Scholl, W. B. Smith. **Sandusky County**—C. A. Kingman. **Scioto County**—Daniel A. Berndt, George D. Blume, D. C. Coleman, R. P. Elder, Clyde M. Fitch, J. W. Fitch, A. P. Hunt, T. G. McCormick, Gilbert Micklethwaite, George Obrist, Harry F. Rapp, J. S. Rardin.

Seneca County—Robert Chamberlain, R. R. Hendershott, R. E. Schriener. **Shelby County**—F. R. McVay. **Stark County**—L. E. Anderson, A. R. Basinger, Edward M. Feiman, L. L. Frick, Robert Graham, Clair B. King, F. M. Krichbaum, Charles A. LaMont, James A. McNalley, J. E. McNalley, John N. Merrick, A. R. Olmstead, L. S. Persell, George D. Popoff, J. E. Purdy, R. L. Rutledge, David J. Tschetter, John M. Van Dyke.

Akron and Summit County—P. A. Davis, R. S. Friedley, R. A. Gregg, Carrie E. Herring, Walter A. Keitzer, R. M. Lemmon, D. B. Lowe, G. A. Lucas, R. V. Luce, Vincent C. Malloy, D. M. McDonald, John A. Moss, R. E. Pinkerton, Fowler B. Roberts, A. S. Robinson, E. R. Shaffer, H. L. Smallman, Edward L. Voke, Rex H. Wilson.

Trumbull County—J. H. Caldwell, H. W. Law, David R. Mathie. **Tuscarawas County**—Jay W. Calhoun, D. M. Ceramella, W. W. H. Curtiss, D. H. Downey, Henry B. Kistler, James A. McCollam.

Union County—John Dean Boylan, J. L. Boylan, Fred Callaway, P. D. Longbrake, J. M. Snider, Angus MacIvor, E. J. Marsh, H. E. Stricker, F. M. Wurtsbaugh. **Van Wert County**—G. A. Edwards, S. A. Edwards, W. E. Lawhead. **Vinton County**—H. D. Chamberlain. **Washington County**—M. S. Muskat, W. E. Radcliffe, W. W.

Sauer, J. F. Weber. **Wayne County**—Lyman A. Adair, R. C. Paul, A. C. Smith.

Williams County—M. R. Kittredge, H. R. Mayberry, H. W. Wertz. **Wood County**—D. R. Barr, Dan B. Spitler. **Wyandot County**—J. Craig Bowman, R. L. Garster, B. A. Moloney, H. K. Van Buren.

Dangers of Botulism Emphasized By The Journal of the A.M.A.

The danger of botulism, particularly during the coming home canning season when many persons who never before attempted home canning will be preserving garden produce, are pointed out by *The Journal of the American Medical Association* for April 17. *The Journal* says:

"Meyer and his associates in California have gathered statistics on 367 outbreaks of botulism in the United States since 1899. Only 83 of the outbreaks have been due to commercially canned foodstuffs; with one possible exception, outbreaks have not occurred in nearly twenty years from this source. The other 284 outbreaks have been caused by foods canned in the home. The total cases of the disease for the forty-three years numbered 1,052 with 687 deaths, a fatality rate of 65 per cent. How many other unrecognized cases have occurred is unknown. During the coming canning season many persons who never before attempted home canning will preserve garden produce. The danger from botulism is ever present unless proper precautions are taken. Faust, discussing methods of home canning, emphasizes the necessity of the pressure cooker with an accurate gage or thermometer for non-acid foods, such as string beans and corn. Any such foods that have been processed in any other manner must be reboiled for at least fifteen minutes before tasting or using. Any home canned food that shows the slightest evidence of spoilage should not even be tasted, for the toxin of the botulinus bacillus is the most powerful poison known. The problem calls for concerted effort by agricultural advisers and public health personnel in warning against faulty methods of home canning and alertness of physicians in recognizing symptoms and administering antitoxin early and in adequate amounts."

Public Health Meeting Dates Set

A three-day Wartime Public Health Conference will be held in New York City, Oct. 12, 13, and 14 under sponsorship of the American Public Health Association, according to an announcement from its executive board. The conference program will be devoted to wartime emergency problems as they affect public health and health workers. The 72nd annual business meeting of the Association will be held in conjunction with the conference.

Plans to Expand Its Activities and Membership Made By Woman's Auxiliary at Annual Meeting In Columbus

By MRS. GEORGE M. WILCOXON, Alliance, Ohio
Secretary, Woman's Auxiliary

THE third annual meeting of the Woman's Auxiliary to the Ohio State Medical Association was held March 30-31, 1943, at the Deshler-Wallick Hotel in Columbus, Ohio. The officers and members of the Board met for the pre-convention Board meeting with Mrs. Dale P. Osborn, President, in charge. The first session of the House of Delegates followed immediately, Mrs. Osborn presiding.

The general chairman in charge of the convention, Mrs. R. S. Fidler, was introduced and briefly greeted the group. Reports of officers and chairmen of Standing Committees were given and the report of the Nominating Committee was read. The business session then recessed until the following morning at nine o'clock.

Members met again at 7:00 o'clock in the evening in three groups of "Little Dinners". One, in charge of Mrs. J. L. Stevens, President-elect, and Mrs. George Wilcoxon, Secretary, discussed "The Need For, and The Place Of, The Auxiliary in War Times and in the Future." A second group discussed "Projects and Programs in War" with Mrs. R. B. Poling, Vice-president, and Mrs. R. S. Fidler, State Program Chairman, leading the discussion. "Medical Legislation" was the subject of the third "Little Dinner" under the leadership of Mrs. David Heusinkveld and Mrs. Frank Siedenburg. The dinners were extremely well attended and discussions proved to be both interesting and valuable.

Following the "Little Dinners" the President's reception was held in the Hall of Mirrors, and was attended by many members of the Ohio State Medical Association accompanied by their wives.

At the second business session of the House of Delegates on Wednesday, a new system was inaugurated—that of having each county president read her report under a time limit of two minutes. The response to this new idea was most favorable, and members thereby gained many excellent ideas, since almost every organized county had something different to report.

Roll call of officers, delegates, and alternates was completed and election of delegates to the National Convention was held. Each delegate will select her alternate and a motion was passed to the effect that Mrs. J. L. Stevens, the incoming President, will have charge of the original and duplicate credential cards. In that way, Ohio will have its correct number of voting delegates or alternates present at the national session.

The report of the Nominating Committee was again read and the motion was passed that the secretary cast the ballot electing the following officers:

President-elect.....Mrs. R. S. Fidler, Columbus
Vice-Pres. Mrs. Frank Siedenburg, Portsmouth
Secretary.....Mrs. George Wilcoxon, Alliance
Treasurer.....Mrs. Theodore Vinke, Cincinnati

District Directors elected were as follows:

District

First.....Mrs. Maurice Hoyt, Hillsboro
Second.....Mrs. Kenneth Lowry, Troy
Third.....Mrs. Claude Lingenfelter, Bucyrus
Fourth.....Mrs. Paul Holmes, Toledo
Fifth.....Mrs. I. F. Weidlein, Cleveland
Sixth.....Mrs. L. L. Frick, Canton
Seventh.....Mrs. C. J. Miller, N. Philadelphia
Eighth.....Mrs. J. F. Weber, Marietta
Ninth.....Mrs. Wm. Singleton, Navoo
Tenth.....Mrs. J. Shamansky, Mt. Vernon
Eleventh.....Mrs. L. Hautzenroeder, Mansfield

Delegates elected to the National Convention were: Mrs. J. L. Stevens, Mansfield; Mrs. David Heusinkveld, Cincinnati; Mrs. A. P. Hunt, Portsmouth; Mrs. Frank Siedenburg, Portsmouth; Mrs. Claude Lingenfelter, Bucyrus; Mrs. Dale P. Osborn, Cincinnati; Mrs. Theodore Vinke, Cincinnati; Mrs. R. S. Fidler, Columbus; Mrs. Clyde Stafford, Oxford; Mrs. Murray E. Goodrich, Toledo; Mrs. H. A. Coleman, New Philadelphia; Mrs. Robert M. Lemmon, Akron; Mrs. Geo. M. Wilcoxon, Alliance; Mrs. E. C. Malloy, Akron; Mrs. J. E. Purdy, Canton.

Under new business, several steps forward were taken, the more important ones are herein mentioned. It was reported that the Student Loan Fund Scholarship which was set up under the direction of Mrs. Ralph Hoffman, of Columbus, has \$511.00 available for girls who need aid to receive their nursing training.

A motion was passed that the Woman's Auxiliary to the Ohio State Medical Association undertake a study during the coming year of the new trends in medicine in all its ramifications; that a Committee be appointed to develop such a study program in co-operation with the Ohio State Medical Association, and that this program be adopted by all local auxiliaries. Mrs. Ralph Hoffman was appointed to head this committee.

The House of Delegates adopted the following resolutions:

Whereas, The Woman's Auxiliary to the Ohio State Medical Association is deeply cognizant of the crisis confronting the medical profession and country at large; therefore be it resolved, that the Woman's Auxiliary accelerate its program to carry out the recommendations for increased membership among the wives of those doctors who while not serving the armed forces, are so nobly doing their share on the home front.

Whereas, The public needs more authentic information on health needs; therefore be it resolved, That the Auxiliary double its efforts to place *Hygeia* in clubs, schools, and places of public service where it will be read and used to the greatest advantage.

Whereas, Due to the needs of the armed forces for more doctors and nurses whereby the health of our civilians may be jeopardized; therefore be it resolved, That the Woman's Auxiliary work with untiring effort to encourage the public to take advantage of the American Red Cross classes in Home Nursing—one home nurse in every family, and to encourage when and wherever possible women to enroll in the Volunteer Nurse Aid Course sponsored by the American Red Cross and the Office of Civilian Defense, to release more nurses for the armed forces. Be it further resolved that the Auxiliary redouble efforts to encourage young girls to take up nursing as a profession to give more adequate care to the civilian population now and to fill a great need during the reconstruction period that must inevitably follow.

Whereas, Many of our members are in distant places, therefore be it resolved, that we extend to them our appreciation in the belief that they also serve who add to the morale of our armed forces by their sacrifice and contribution to the well-being of the doctors who are giving so much to the service of our country, and that this resolution be spread upon the minutes of our meeting.

Whereas, The Woman's Auxiliary to the Ohio State Medical Association has been the recipient of excellent cooperation and courtesy therefore, be it resolved, That the Woman's Auxiliary express its sincere appreciation to Mr. Charles Nelson and his staff for their courtesy and cooperation in the past year and to those who have added so much to the fine spirit of hospitality; to Mrs. Dale P. Osborn, president and the officers and chairmen who have made possible another successful year of our organization; to the Franklin County Auxiliary for its hearty welcome and generous hospitality; to Mrs. R. S. Fidler, general chairman of convention, and her committee for their splendid cooperation; to Rev. Floyd Faust for his inspirational and timely

invocation; to Dr. C. C. Sherburne for his inspiring address; and to the Deshler-Wallick hotel for the courtesy and hospitality extended to the officers, members, and guests of the Auxiliary.

Dr. C. C. Sherburne addressed the House of Delegates on "Socialized Medicine" and immediately following his talk, a short installation ceremony was held for the new officers.

Mrs. Dale P. Osborn presided over the luncheon in honor of the new president, Mrs. J. L. Stevens. Mrs. Stevens gave a short talk in appreciation of her election to the highest office of the Auxiliary. Remarks were made by Dr. J. L. Stevens, Dr. Dale P. Osborn, Dr. E. J. McCormick, Dr. R. L. Rutledge, and Dr. A. A. Brindley, and the luncheon closed a most profitable, instructive, and progressive annual meeting.

Coming Meetings

House of Delegates of American Medical Association, Chicago, beginning June 7.

American Association of Genito-Urinary Surgeons, Stockbridge, Mass., June 10-12.

American Association of Industrial Physicians and Surgeons, Rochester, N. Y., May 25-27.

American Association on Mental Deficiency, New York, May 12-15.

American College of Radiology, Chicago, June 6

American Gynecological Society, Hershey, Pa., May 31-June 2.

American Neurological Association, New York, May 6-7.

American Ophthalmological Society, Hot Springs, Va., May 31-June 2.

American Psychiatric Association, Detroit, May 10-13.

American Society of Clinical Pathologists, Chicago, June 4-6.

American Surgical Association, Cincinnati, May 13-14.

National Tuberculosis Association, St. Louis, May 5-6.

Radiological Society Holds Election

The Ohio State Radiological Society met at the Neil House, Columbus, on March 31, during the Annual Meeting of the Ohio State Medical Association. After Dr. U. V. Portmann, Cleveland, retiring president, had discussed various matters of special interest to the radiologist, the society elected the following officers for 1943: President, Dr. Edgar Baker, Youngstown; vice president, Dr. Huston Fulton, Columbus; secretary-treasurer, Dr. E. B. Bader, Cincinnati; executive committee, Dr. Portmann, Dr. C. E. Huford, Toledo, and Dr. Edward Voke, Akron.

Names of 49 Additional Ohio Physicians Are Placed On Military Roster; Promotions and Data By Counties

SINCE the April issue went to press, *The Journal* has been informed that an additional 49 Ohio physicians have entered military service or have taken full-time positions with Federal agencies for the duration. As of April 20, the total of Ohio physicians in the services, including non-military agencies, was 2,468. The number in the Army is 2,136; Navy, 286; other services, 46.

Following are the names of those who have entered the service, the breakdown by counties, and promotions. These lists are unofficial. If there are errors *The Journal* would appreciate being properly informed:

Name	City	Rank
Atkins, Harry T.	Cincinnati.....	Lt., U.S.N.
Baker, Conrad E.	Cincinnati.....	Capt., U.S.A.
Bevan, John Y.	Steubenville.....	Capt., U.S.A.
Bowman, Brack M.	Youngstown.....	Major, U.S.A.
Brumbaugh, John Daniel	Akron.....	Capt., U.S.A.
Castle, Chas. A.	Cincinnati.....	Lt., U.S.N.
Curtis, Thomas D.	North Baltimore.....	1st Lt., U.S.A.
Eckart, Burnell F.	Cleveland.....	Lt., U.S.N.
Elwyn, Leo Sidney	Toledo.....	1st Lt., U.S.A.
Fineberg, M. H.	Cleveland.....	Major, U.S.A.
Freedman, Arthur	Cincinnati.....	1st Lt., U.S.A.
Geiger, Franklin R.	Cincinnati.....	1st Lt., U.S.A.
Goldberg, Lawrence C.	Cincinnati.....	1st Lt., U.S.A.
Hayden, Jos. D.	Akron.....	Lt. Comdr., U.S.N.
Henderson, Wm. S.	Akron.....	Lt. Comdr., U.S.N.
Hildebrand, R. D.	Newcomerstown.....	Lt. Comdr., U.S.N.
Hochwalt, Jerome P.	Lebanon.....	1st Lt., U.S.A.
Hokr, Wm. K.	Toledo.....	1st Lt., U.S.A.
Hutchinson, William B.	Athens.....	1st Lt., U.S.A.
Keller, Karl	Canton.....	1st Lt., U.S.A.
Kugler, Frank E., Jr.	Cincinnati.....	Capt., U.S.A.
Kurzner, Meyer	Cincinnati.....	Lt., U.S.N.
Lederer, Henry David	Cincinnati.....	Capt., U.S.A.
Lewis, H. A.	Cleveland.....	1st Lt., U.S.A.
Miller, Royston	Cleveland.....	Lt. (j.g.), U.S.N.
Mills, Chas. W., Jr.	Chillicothe.....	Capt., U.S.A.
Ockuly, Eugene A.	Toledo.....	Major, U.S.A.
Parry, Thayer L.	Akron.....	Major, U.S.A.
Peal, Stanley	Cincinnati.....	Capt., U.S.A.
Poindexter, M. M., Jr.	Chillicothe.....	Capt., U.S.A.
Ramsayer, Ralph K.	Canton.....	Major, U.S.A.
Rauh, Albert E.	Cincinnati.....	Capt., U.S.A.
Rodabaugh, Franklin	Toledo.....	1st Lt., U.S.A.
Schmidt, John R.	Cincinnati.....	Lt. (j.g.), U.S.N.
Schwegman, Cletus W.	Cincinnati.....	Capt., U.S.A.
Segal, Abraham Jacob	Cleveland.....	1st Lt., U.S.A.
Seitz, H. M.	Wapakoneta.....	1st Lt., U.S.A.
Shaper, A. A.	Cincinnati.....	Lt. (j.g.), U.S.N.
Summers, J. D.	Cleveland.....	1st Lt., U.S.A.
Taliak, Martin B.	Cleveland.....	Capt., U.S.A.
Treece, Harold K.	Toledo.....	1st Lt., U.S.A.
Ulicny, Henry P.	Toledo.....	1st Lt., U.S.A.
Weller, Herbert C.	Toledo.....	Lt., U.S.N.
Williams, Charles	Toledo.....	1st Lt., U.S.A.

Doull, James A.	Cleveland
	Sr. Surgeon (Lt. Col.), U.S.P.H.S.
Edmunds, W. P.	Cleveland Heights
	Consultant Expert, Air Corps
Halter, P. F.	Cleveland.....
	Medical Officer, U.S.P.H.S.
Krivosos, A. F.	Cleveland.....
	Vet. Admin.
Mills, W. H.	Cleveland.....
	U.S.P.H.S.

WIN PROMOTIONS

Name	City	Promoted to
Bartun-k, Robert B.	Shaker Heights.....	Capt., U.S.A.
Beach, Wilbur E.	Middlepoint.....	Col., U.S.A.
Brown, Arthur A.	Canel Fulton.....	Lt. Col., U.S.A.
Brown, L. Emmitt	Akron.....	Major, U.S.A.
Buckner, Leslie M.	Cincinnati.....	Major, U.S.A.
Burnstein, Theodore	Canton.....	Col., U.S.A.
Coers, B. N.	Circleville.....	Capt., U.S.A.
Cushing, E. H.	Cleveland.....	Capt., U.S.N.
Dutrow, H. V.	Dayton.....	Lt. Col., U.S.A.
Fridline, G. D.	Ashland.....	Major, U.S.A.
Gray, Ralph E.	Cleveland.....	Capt., U.S.A.
Haubrich, Robert C.	Pataskala.....	Capt., U.S.A.

Holmberg, Robert E.	Cleveland.....	Major, U.S.A.
James, D. S.	Delaware.....	Major, U.S.A.
Jauch, Roland S.	Rocky River.....	Lt. Col. U.S.A.
Keating, Edw. T.	Hamilton.....	Capt., U.S.A.
Leyrer, Ralph Henry	Hamilton.....	Capt., U.S.A.
Lord, Raymond S.	Fredericktown.....	Capt., U.S.A.
Maggiore, Jerome J.	Canton.....	Capt., U.S.A.
Porter, Wm. L.	Cincinnati.....	Capt., U.S.A.
Ridgeway, Jos. A.	Columbus.....	Major, U.S.A.
Roden, Carl A.	Hamilton.....	Capt., U.S.A.
Rodenberg, Elmer J.	Columbus.....	Lt. Col., U.S.A.
Ruppersburg, Anthony	Columbus.....	Lt. Col., U.S.A.
Spencer, Newton C.	Toledo.....	Lt. Col., U.S.A.
Sternleib, Max	Wadsworth.....	Capt., U.S.A.
Suttle, R. C.	Put-In-Bay.....	Capt., U.S.A.
Thomas, Densmore	Niles.....	Capt., U.S.A.
Thomas, Lester C.	Lima.....	Lt. Col., U.S.A.
Thomas, Robert L.	Youngstown.....	Major, U.S.A.
Tims, Walter J.	Youngstown.....	Capt., U.S.A.
Willis, W. H.	Painesville.....	Major, U.S.A.
Wolf, Robert E.	Uhrichsville.....	Capt., U.S.A.
Zeithaml, C. E.	Cleveland.....	Major, U.S.A.

TABULATION BY COUNTIES

Adams 2	Guernsey 5	Muskingum .. 7
Allen 37	Hamilton333	Noble 1
Ashland 11	Hancock 13	Ottawa 8
Ashtabula ... 1	Hardin 7	Paulding 2
Athens 12	Harrison 4	Perry 4
Auglaize 6	Henry 2	Pickaway 4
Belmont 9	Highland 8	Pike 2
Brown 4	Hocking 4	Portage 2
Butler 24	Holmes 2	Preble 7
Carroll 1	Huron 13	Putnam 5
Champaign .. 8	Jackson 1	Richland 39
Clark 31	Jefferson 30	Ross 19
Clermont 9	Knox 11	Sandusky 11
Clinton 7	Lake 17	Scioto 18
Columbiana .. 9	Lawrence 7	Seneca 12
Coshocton ... 4	Licking 17	Shelby 7
Crawford 9	Logan 9	Stark 91
Cuyahoga583	Lorain 35	Summit128
Darke 6	Lucas149	Trumbull 29
Defiance 3	Madison 6	Tuscarawas ... 18
Delaware 5	Mahoning102	Union 1
Erie 10	Marion 16	Van Wert 9
Fairfield 8	Medina 12	Vinton 2
Fayette 2	Meigs 1	Warren 4
Franklin204	Mercer 6	Washington ... 6
Fulton 6	Miami 13	Wayne 12
Gallia 6	Monroe 1	Williams 9
Geauga 3	Montgomery .122	Wood 15
Greene 8	Morgan 3	Wyandot 3
Total		2468

Supplies for Special Kits Needed by Medical Relief Committee

To help the Medical and Surgical Relief Committee of America, 420 Lexington Avenue, New York City, continue its work of providing emergency medical kits to Coast Guard patrol boats and Navy sub-chasers, an urgent appeal for drugs and instruments has been issued by the Committee to surgeons, physicians, and medical supply houses.

Among the items needed to equip the emergency kits are artery clamps, splinter forceps, scalpels, probes, grooved directors, sulfadiazine tablets, sulfadiazine ointment 5%, sulfathiazole tablets, and sterile shaker envelopes of crystalline sulfanilamide. Any other spare medicine or surgical instruments are equally welcome. Contributions should be sent directly to the committee.

WAR NOTES

FROM "somewhere in the Caribbean area," Lt. Col. H. V. Dutrow, formerly of Dayton, an ex-member of the Legislative Committee of the Ohio State Medical Association and a veteran member of the House of Delegates, writes in part as follows:

"I wish to thank the council and the members of the State Association for forwarding to me without cost *'The Ohio State Medical Journal.'* There are a great many members of the State Association in the military services in this area and I am sure all of them appreciate your kind consideration. I am inclosing herewith a picture of the new permanent hospital formally opened in February, 1943. It is a complete medical unit and is modern in every way and is said to be the best fully equipped permanent hospital in the Army Air Force. I have an excellent staff composed of medical and dental officers, Army nurses, and enlisted and civilian personnel. I became Base Surgeon in July, 1942. Prior to my entering private practice in Dayton, Ohio, I spent seven years with Colonel Gorgas at Panama during the construction of the canal, where I had the opportunity of obtaining first hand training in tropical medicine and sanitation. This tour of duty enabled me, upon being ordered to active duty and assigned to a tropical Army post, to utilize to good effect this experience. We are proud of our malarial fever rate here because it is the lowest in the Caribbean Defense Command. Not a single new case of malaria occurred on the post during the month of February of this year. Our venereal disease rate is also the lowest in the area, due to the excellent work done by Major R. E. Tyvand, of Dayton, Ohio, who is the Venereal Disease Control Officer for this command. I have under consideration at the present time recommendation for a citation for meritorious service rendered by him.

"All of us read the war notes published in *The Journal* with great interest. * * * My tour of duty is liable to terminate any time due to the War Department policy of returning men to the states after two years overseas service. We all like it here and the climate is perfect. I believe it is probably as good if not better than the Hawaiian Islands."

* * *

Lt. Richard C. Miller, who is attached to the surgeon's office, Headquarters Aircraft Warning Unit Training Center, Drew Field, Tampa, Fla., states that the first thing the Ohio boys do when they get *The Journal* is to turn to the "War Notes". (Keep 'em coming, boys.) Lt. Miller practiced at Dayton before entering the service.

Two Ohioans are chiefs of service at Kennedy General Hospital, the new 3000-bed Army hospital recently opened at Memphis, Tenn. They are: Major Emmerich von Haam, chief of laboratory service, formerly professor of pathology, Ohio State University College of Medicine, Columbus, and Major Justin E. McCarthy, chief of X-ray service, formerly assistant attending radiologist, Cincinnati General Hospital.

* * *

According to newspaper dispatches. Captain W. E. McKee, former Bryan physician, is missing in action in North Africa. He was a medical officer attached to an armored regiment, having entered the service as a reserve officer in May, 1941.

* * *

"I have the chest surgical service and have been kept quite busy," writes Lt. J. P. Keogh, U.S.N., Youngstown, from Pearl Harbor, adding that the newly-opened hospital "is a beauty."

* * *

In Alaska since July, 1942, Robert L. Thomas, Columbus, was recently appointed to the rank of major.

* * *

The Lowry brothers—Kenneth of Troy, and Forrest of Urbana—are with an auxiliary surgical group in North Africa, according to recent information received back home. Kenneth is a major; Forrest, a captain.

* * *

Captain W. L. Faul, Jr., formerly of Georgetown, writes as follows from somewhere in Louisiana where he was on maneuvers with the Army: "We are nearing the end of the maneuvers and have already admitted over 1,500 patients to the hospital. As Chief of Medical Service, my duties are many and various—we have seven medical wards up now, with 20 patients to the ward, as well as about that many surgical wards. An emergency appendectomy was performed today, in the tent that serves as an operating room, by Lt. James Johnson, son-in-law of Vic Donahey, formerly of Newark. Lt. Johnson, by the way, is temporarily on duty here, bunks in my tent and belongs to a cavalry unit. Last night, Lt. Johnson, as medical officer of the day, was summoned to the receiving ward by the announcement that a large number of casualties had been brought in. I went up to help him and before the night was over 26 paratroopers were admitted

with various injuries resulting from landing in some tree-tops not far away. Tactically they were our enemies, but they received good treatment. A large mobile X-ray unit is part of our outfit and was kept busy through the night as most of these cases required one or more X-rays. A tent is equipped as a dark-room and the films processed there. * * * It was really a treat to get back to seeing patients again after six months away from them in special medical schools * * * although the men who have been here for six weeks are beginning to weary of it."

* * *

Friends of Major J. H. Lazzari, Cleveland Lakeside Unit, now on duty in Australia, will be pleased to learn that he is recovering satisfactorily from typhus fever.

* * *

Lt. R. T. Warburton, M.C., U.S.N., formerly of North Canton, writes that he had the honor recently of examining E. H. Cushing, formerly of Lakeside Hospital, Cleveland, for his promotion to the rank of Captain, Navy Medical Corps.

* * *

Dr. James M. Ruegsegger, formerly of Cincinnati and more recently with the Lederle Laboratories but now engaged in medical war work for the Division of Medical Sciences, National Research Council, was a member of a special commission which studied atypical or irregular pneumonia at Camp Claiborne, La., the report of which was published in the last issue of *War Medicine*.

* * *

After serving in a dispensary at Camp Shelby, Miss., where he was assigned to foot injuries and disabilities (a real problem in connection with the training of rookies), Captain M. W. Neidus, Youngstown, has been transferred to an "umpire school" where he will be trained in the erection of hospitals on or near fighting fronts.

* * *

Lt. Harry A. Haller, Cleveland, recently on furlough, has rejoined his command in the South Pacific.

* * *

Commander Harry M. Sage, Columbus, (he was recently promoted to that rank) is on active duty with the Navy Medical Corps in the Pacific area.

* * *

Recently promoted to the rank of major, Leslie M. Buckner, Cincinnati, is now chief of medical services of a station hospital at Austin, Texas.

* * *

A report has been received of the promotion of Densmore Thomas, Niles, to the rank of captain. He is stationed at Camp Livingston, La.

Lt. Comdr. R. V. Clifford, Girard, is in Brazil where he is surgeon at an operating base for the U.S. fleet.

* * *

Captain Frank H. Jones and Captain Benjamin C. Houghton, both of Columbus, are taking special work at Carlisle Barracks, Pa.

* * *

Major T. L. Bliss, Akron, has been transferred from Washington, D. C., to the newly-completed Ashburn General Hospital, McKinney, Texas, where he is serving as assistant chief of medical service.

* * *

Two former Cleveland physicians are chiefs of service at the Station Hospital, Truax Field, Madison, Wisc. Major Bernard B. Larsen is chief of surgical service and Major C. S. Higley is chief of medical service.

* * *

Captain Ralph E. Gray of the Lakeside Hospital Unit, now "somewhere in Australia," was a recent visitor at Cleveland while in this country on a special mission. Captain Gray, former chief resident physician at St. Vincent Charity Hospital, Cleveland, had what was really his first chance to get acquainted with his 15-month-old daughter, born five days before the Lakeside Unit left Cleveland for active service. He reported that the personnel of the unit is in tip-top shape and that the people of Australia are exceedingly friendly to American troops.

* * *

Major D. S. James, Delaware, is Division Medical Inspector and Division Venereal Disease Control Officer for the 102nd Infantry Division, Camp Maxey, Texas. He was promoted to his present rank on February 20. Since entering the Army last May, Major James has completed two courses at the Medical Field Service School, Carlisle, Pa., one of which being the first medical inspector's course given at the school.

* * *

Writing from Fort Bragg, N. C., Lt. Isador Miller, formerly of Urbana and now on the staff of the 56th Station Hospital, states that Major Harry E. Caldwell, Delaware physician, is the hospital's new commanding officer. Dr. Miller says he recently took a special course in anesthesia at Tilton General Hospital, Fort Dix, N. Y., and that Lt. David Friedman, M. C., of Toledo, was one of his classmates.

* * *

Captain Lewis K. Reed, Youngstown, now at Muroc, Calif., where he is chief of medicine at a 250-bed station hospital, has written the Mahoning County Medical Bulletin, in part, as follows:

"This Base is pretty much out in the desert,

is new and is growing very fast. In the few weeks I've been here there has been a lot of growth and improvement in all matters. The place owes its importance to its great strategic location: 2500 feet elevation, a desert plateau among the mountains, 110 miles from Los Angeles, with 360 flying days a year.

"A few facts I have had from letters which may not be known to you all. Sam Weaver and Pete Boyle were sent from Miami Beach to Chicago where they are working in the same Hospital with Jack Noll. 'Nels' Nelson was in Chicago taking a course in Neurosurgery a few days ago when I heard from there. Fred Schellhase was in Walter Reed taking a course in Tropical Medicine a few weeks ago. I saw our old Interne Ken Bennett at Miami Beach, but have had no word since he left there."

* * *

"Have you had any horse meat yet? Most of us would rather eat horse than mutton. I don't believe we ever had much mutton at home and I am sure I didn't miss anything. Of course, a good lamb chop is quite a different thing and I still consider it a delicacy. But once the beastie reaches maturity in my opinion its usefulness lies largely in wool-growing." Thus writes Captain Webb P. Chamberlain, Jr., of the Cleveland Lakeside Unit, stationed in Australia.

* * *

Fred Somma, formerly of Dayton, now a First Lt., Army M.C., is with a station hospital unit "somewhere in England." His address is APO 54 care Postmaster, New York. He writes that his hospital is about completed and that a few days in London helped them to forget about the rains and damp, cold climate. Lack of heat is a big problem but the food is excellent, he says.

* * *

Major Maurice A. Schnitker, Toledo, is assistant chief of medical service and chief of general medical service, at the new U. S. Army Valley Forge General Hospital, a 2,000 bed institution, at Phoenixville, Pa.

* * *

Lieut. Col. B. Noland Carter, Cincinnati, is on duty in the Surgeon-General's Office, as assistant to the consultant in surgery. Col. Carter was assistant professor of surgery at the University of Cincinnati College of Medicine when called into military service about a year ago.

* * *

Captain William L. Denny, Army Medical Corps, now on duty in England, who entered the service from private practice in Cambridge, has written his family that he was made a Fellow of the Royal Society of Medicine of England recently.

A promotion to Lt. Col., was given recently to Dr. Roland S. Jauch, Rocky River, who has been director of the Laboratory Section, Service School Medical Department, Brooke General Hospital, Fort Sam Houston, Texas, for the past two years.

* * *

Friends in Newcomerstown have received word that Lt. M. V. Sheets, M.C., U.S.N., formerly of the city, has arrived at an overseas port.

* * *

Lt. H. M. Seitz, formerly of Wapakoneta, is completing a six-weeks refresher course at Carlisle Barracks. He expects to be assigned to the Medical Replacement Pool, Army Air Force, Salt Lake City.

* * *

Captain A. W. Beale, who left private practice at Warren to enter the Army Medical Corps, is "somewhere in China," according to a recent letter received by *The Journal*.

* * *

Lt. Melvin Brody of Canton, has been transferred to the 30th Medical Regiment, Camp Barkley, Texas.

* * *

Lt. Robert G. Smith, Columbus, has been assigned to the U.S.S. Maryland and is somewhere at sea.

* * *

With his destination a military secret, Dr. James A. Doull, professor of public health and hygiene, Western Reserve University School of Medicine, is on an overseas mission for the Lend-Lease Administration. He holds the appointment of Senior Surgeon (Lt. Col.) in the United States Public Health Service. During World War No. 1, Dr. Doull served four years in the British Medical Corps, winning the Military Cross for his services. He is an international authority on tropical disease, especially leprosy.

* * *

Major A. P. Ormond, Akron, is now located at the Army Air Base, Great Falls, Montana.

* * *

After six weeks at Miami Beach, Captain C. F. Kissinger, Youngstown, is now stationed at Wichita Falls, Texas.

* * *

Lt. Col. C. H. Hodgkinson, Cleveland, who served with the old Lakeside Hospital Unit at Rouen, France, in 1917-18, is now attached to a Station Hospital in Iceland.

* * *

A hospitalization distribution plan for overseas casualties has been promulgated by the War Department. Such patients will be transferred to general hospitals where further observation and treatment is needed and when a break in treat-

ment will not retard recovery. Transfers will be made generally when there are 25 or more such patients and will be made to designated hospitals in the vicinity of their homes.

* * *

Louis E. Brown, Akron, has been promoted to the rank of major, Medical Corps, and is located at Camp Barkeley, Texas.

* * *

Captain and Mrs. Clark Pritchett, Columbus, are the parents of a son, born at San Antonio, Texas, where Captain Pritchett is stationed.

* * *

Stationed with the Army Air Force in England, Robert Holmberg, Cleveland, was recently promoted to major. H. J. Baker, also of Cleveland, is now a major and is on overseas duty.

* * *

Physicians are urged to contribute quinine supplies to the National Quinine Pool, American Pharmaceutical Association, 2215 Constitution Avenue, Washington, D. C., where they will be tested for identity, pooled and assayed before being sent to the Army and Navy which are in need of all the quinine which is available. Preparations of quinine or other cinchona derivatives in combination with other medicinal agents should not be sent.

* * *

Attached to a fighter squadron in North Africa, R. P. Dutlinger, formerly of Cleveland, reports that he is "becoming quite a seasoned desert rat," having weathered a period of the most violent sand storms in over a year."

* * *

Mrs. Stanley A. Myers, Youngstown, recently received a present from Lt. Myers—a couple of huge, deceased Southern Pacific ants. Lt. Myers wanted to see action when he joined up. He saw it at Guadalcanal and is now at another "hot spot."

* * *

Legislation authorizing the appointment of women physicians in the Medical Corps of the Army and Navy has been passed by the Congress and signed by the President.

* * *

"Getting tired of Spam even though it can be fixed a 1000 ways" writes Lt. Harold M. Messenger, flight surgeon attached to a troop carrier squadron in the South Pacific. He formerly was on the staff at the Cleveland Clinic.

* * *

Col. N. A. Albanese, Columbus, has been transferred from Camp Sutton, N. C., to near San Bernardino, Calif., where he is engaged in desert training.

M. M. Szucs, U.S. Public Health Service, Reserve, formerly of Youngstown, is chief medical officer. U.S. Maritime Service Enrolling Offices, Boston.

* * *

Now stationed at Fort George G. Meade, Maryland, Lt. Col. Charles E. Howe, formerly of Westerville, was recently promoted to his present rank.

KEEP THE "WAR NOTES" COMING

According to letters from physicians in the Services, "War Notes" has become one of *The Journal's* most popular features. We want to make it better and better. Therefore, we urge men in the service to send us information about themselves and about Ohio physicians whom they meet or from whom they get letters. Also, we urge physicians on the home front to mail us memos about their colleagues in the service, based on letters received from them by relatives and friends.—The Editor.

Lt. Comdr. O. M. Lawton and Lt. Samuel Schwebel have seen plenty of action with the navy all over the South Pacific. Within the space of a week or so, Lt. Schwebel met and visited with three Youngstown physicians at various ports—Lt. Stanley A. Myers, Lt. Joseph P. Keogh and Captain Henry Sisek. What a reunion ensued!

* * *

Captain E. C. Pickard, who sustained a foot injury in Africa, is convalescing at his home in Akron.

* * *

It's now, Captain Edward W. McCall, formerly of Columbus. He is stationed at Fort Bragg, N. C.

* * *

Lt. John P. Urban, Columbus, recently was assigned to the School of Aviation Medicine, Randolph Field, Texas.

* * *

Lt. Joseph B. Kupec, Youngstown, is stationed at a brand new (partially unfinished) hospital at Peterson Field, Colorado Springs.

* * *

He's getting swell postgraduate training handling emergencies and giving physical examinations to WAACS at Walter Reed Hospital, Washington, according to Captain Joseph Colla, Youngstown.

* * *

Here are the locations of a number of Youngstown physicians: Capt. Herman Ipp is at San Antonio Aviation Cadet School; Capt. Macolom Hawk, Camp Crowder, Mo.; Lt. Samuel Klatman,

Seattle; Capt. Henry Middleton, Evansville, Ind.; Capt. Walter J. Tims, "somewhere" in England; Lt. Comdr. Herman Zeve, Trinidad, British West Indies; Lt. John A. Welter, Camp Beale, Calif.; Capt. L. A. Moyer, Luke Field, Yuma, Arizona; Capt. L. W. Weller, Camp Wallace, Galveston; Lt. C. G. Wales, Camp Howze, Texas; Lt. John Rogers, Charlotte, N. C.; Capt. H. E. Hathhorn, Camp Adair, Cornwallis, Oregon.

* * *

Major Edward E. Woldman, South Euclid, has been transferred from a temporary assignment at New Orleans to the 130th Station Hospital, Camp Barkeley, Texas, a 750-bed institution. He is chief of medical services.

* * *

Captain A. C. Marinelli, Youngstown, is chief surgeon at a camp near New Orleans, where his ability to speak French, Italian and Spanish was used to good advantage.

* * *

A special course in tropical medicine is being taken at Walter Reed Hospital, Washington, by Captain John H. McLaughlin, Columbus.

* * *

Major Ivan C. Smith, Youngstown, has been in charge of physical medicine at Camp Campbell, Ky., but hopes to be assigned to Billings General Hospital, Indianapolis, in the near future.

* * *

A new seaplane tender, dubbed "The Hotel," is the present abode of Lt. John Renner, U.S. Navy Medical Corps, of Youngstown. He's the ship's surgeon.

* * *

Lt. Harold J. Reese, U.S. Navy Medical Corps, and Mrs. Reese are at the Maritime Training Station, Manhattan Beach. They're from Youngstown.

Dr. Heering New Venereal Disease Control Officer for State

Roger E. Heering, M.D., M.P.H., past assistant surgeon, United States Public Health Service, has been loaned to the State of Ohio at the request of Dr. R. H. Markwith, Director of Health, as Venereal Disease Control Officer. Dr. Heering began his appointment April 1, 1943, coming here from District No. 1, United States Public Health Service, with Headquarters in New York City, where he was Venereal Disease Consultant for the ten States in that District. Dr. Heering, a Commissioned Officer in the United States Public Health Service since 1934, was loaned to Ohio on a previous occasion in 1939-1940 as Venereal Disease Control Officer in the Cincinnati area. He graduated at the University of Michigan Medical School in 1933.

Second Call for Procurement and Assignment Questionnaire

HAVE YOU FILLED OUT AND MAILED THE NEW PROCUREMENT AND ASSIGNMENT QUESTIONNAIRE TO DR. ROBERT CONARD, 1005 HARTMAN THEATER BUILDING, COLUMBUS ?

IF YOU HAVE NOT, DO SO IMMEDIATELY. IT IS ESSENTIAL THAT THIS BIOGRAPHICAL AND PROFESSIONAL DATA BE OBTAINED ON ALL OHIO PHYSICIANS, REGARDLESS OF AGE, EXCEPT THOSE IN MILITARY SERVICE, SO THE PROCUREMENT AND ASSIGNMENT COMMITTEE WILL HAVE ACCURATE INFORMATION ON MEDICAL FACILITIES AND PERSONNEL ON THE HOME FRONT.

IF YOU DID NOT RECEIVE A QUESTIONNAIRE OR HAVE MIS-LAID YOURS, WRITE FOR ONE.

Institute Gets New Building

An endowment by the late Frank Collins of the National Supply Company has made possible the erection of a new two story building to house the Toledo Hospital Institute of Medical Research in Toledo, Ohio. The Institute consists of a staff including a biochemist, nutritionist, bacteriologist, pathologist and biophotographer under the direction of Dr. Bernhard Steinberg. The staff will be augmented in the future by a physiologist, biophysicist and pharmacologist. Provision has been made to accept fellows in medical and dental research. It is the purpose of the Institute not to devote itself exclusively to the study of a single disease, but to maintain a fluid interest in disease in general depending upon the availability of the specific personnel.

Union District Society Meeting

The 153rd Semi-Annual Meeting of the Union District Medical Association was held at the Anthony Wayne Hotel, Hamilton, April 29. The program consisted of two addresses by members of the faculty of the University of Cincinnati College of Medicine: Dr. Max M. Zininger, associate professor of surgery, "Carcinoma of Colon and Rectum"; and Dr. Charles D. Aring, associate professor of neurology, "Polyneuritis Associated With Malnutrition". Arrangements for the meeting were in charge of the officers: Dr. Leon T. Cox, president, Fountain City, Indiana; Dr. Edward O. Bauer, vice-president, Middletown, and Dr. Clyde I. Stafford, secretary-treasurer, Oxford.

Expanded Health Program Urged by National Resources Planning Board in Voluminous Report to Congress

ON March 10, President Roosevelt submitted two reports of the National Resources Planning Board to Congress. One report, entitled "National Resources Development—Report for 1943," consists of 81 pages of proposals "to meet the problems of the transition period from war to peace and for the longer-range development of an expanding economy," and may be purchased from the Superintendent of Documents, Washington, D. C., for 25 cents. The second report, entitled "Security, Work, and Relief Policies," consists of 617 pages, exclusive of index, reviews a "decade of experience in meeting the needs of our disadvantaged citizens through the provision of work, social insurance, and public assistance," and may be procured from the Superintendent of Documents for \$2.25.

Report number one suggests that "We must seek not merely to avoid the loss through ill health, accidents, and premature death of our most valuable national resource and to eliminate the unnecessary cost of maintaining those who are rendered incapable by reason of previous neglect, but we must also see that it is possible for all our people to enjoy a state of buoyant health and vigor." To achieve these objectives, the report recommends action along the following lines:

REPORT RECOMMENDS ACTION

"a. Health Measures and adequate nutrition in order to eliminate all diseases, disabilities, and premature deaths which are preventable in the light of existing knowledge, through:

"(1) The development of adequate health services and facilities in every county within the country.

"(2) The development of a health program for mothers and children ensuring remedial treatment as well as diagnosis and advisory services; maternal and child health clinics; and health services in the schools.

"(3) Protection of workers whether in the factory or on the farm from unnecessary accidents, controllable occupational diseases, and undue fatigue.

"(4) Continued support from public and private funds for public health research and education with a view to the progressive expansion of the frontiers of control over health hazards.

"(5) Continued support for public and private agencies engaged in the dissemination of knowledge of sound nutritional principles and practices. Especial attention should be devoted to demonstration work in the schools, the factories, and farming areas.

"b. Assurance of adequate medical and health

care for all, regardless of place of residence or income status and on a basis that is consistent with the self-respect of the recipient, through:

"(1) Federal appropriations to aid States and localities in developing a system of regional and local hospitals and health centers covering all parts of the country.

"(2) Assurance of an adequate and well distributed supply of physicians, dentists, nurses, and other medical personnel.

"(3) Expansion and improvement of public medical care for needy persons through larger appropriations and through increased cooperation by and with the medical and dental professions.

"(4) Immediate action by government in cooperation with the medical profession to formulate plans which enable the patient to budget expenses over a reasonable period and to contribute toward the costs of care according to his ability, and which at the same time assure to medical personnel a decent livelihood commensurate with the high costs of their professional training."

Part VIII of Report number one is devoted to an expansion of the foregoing recommendations.

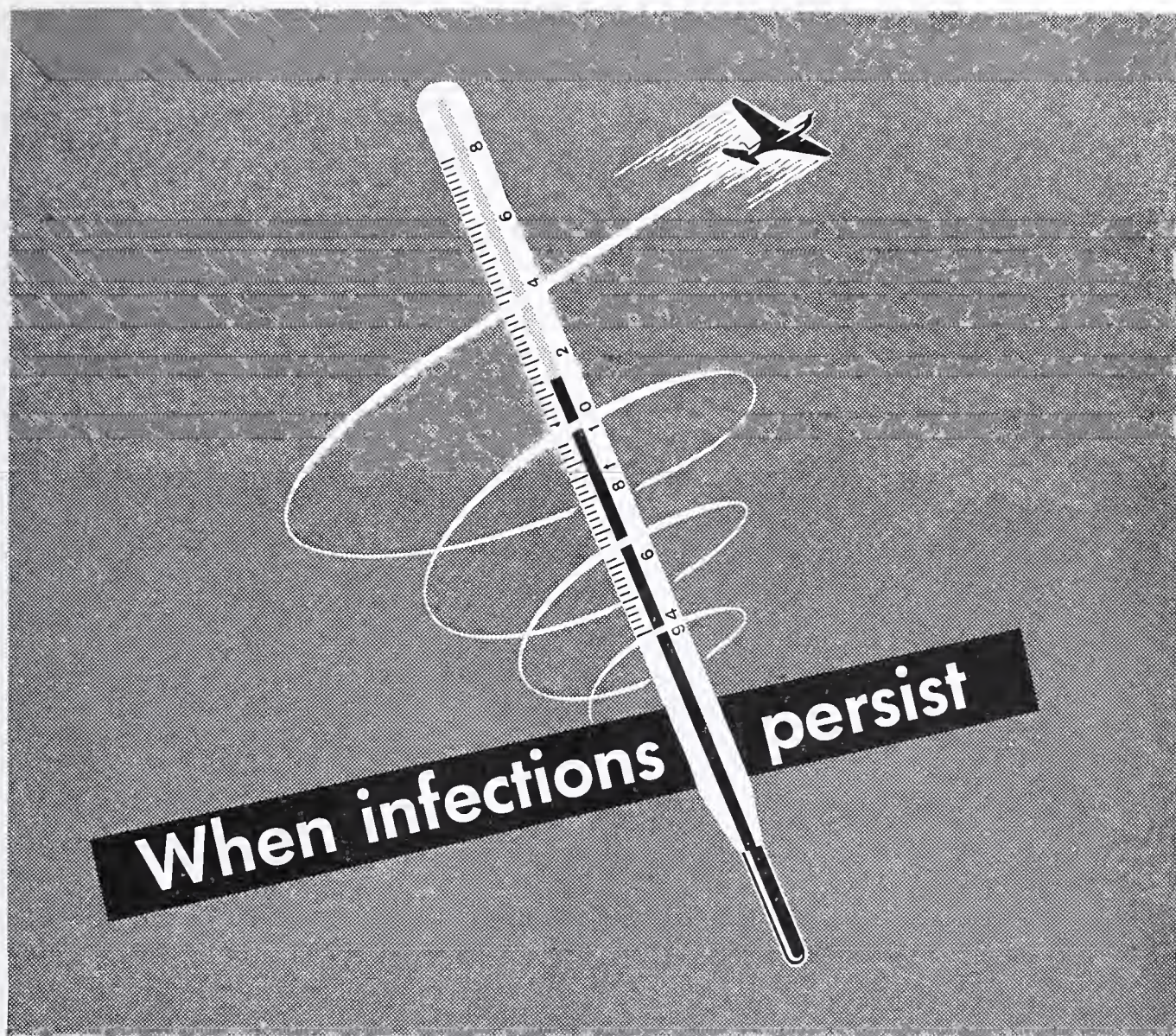
Other new developments on bills of interest in Congress are as follows:

* * *

Medical Care for Wives and Infants of Enlisted Men.—The President has approved a deficiency appropriation bill making available to the Children's Bureau \$1,200,000 for grants to States to provide medical, nursing and hospital maternity and infant care for wives and infants of enlisted men in the armed forces of the fourth, fifth, sixth and seventh grades. An estimate for this appropriation was initially submitted to the Congress last February by the President but the House of Representatives refused to include the estimate in an appropriation bill, H. R. 1975. When this bill reached the Senate, however, it was amended to include the estimate and thereafter the House agreed to the Senate amendment. The authorized appropriation will enable a continuation of the program that was initiated last year until the end of the present fiscal year, June 30. A bill has been introduced in the House by Representative Keefe, Wisconsin, to authorize additional funds for this purpose so that the program may continue beyond the present fiscal year. This bill, H. R. 2041, is pending in the House Committee on Labor. It authorizes for each fiscal year during the period of the present war and for six months following its termination a sum not in excess of \$6,000,000.

* * *

Hospital Facilities.—A bill to authorize an appropriation of \$2,000,000 to provide for the expansion of facilities for hospitalization of dependents of naval and marine corps personnel,



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and for other purposes, H. R. 1936, has passed the House. A House resolution, H. Res. 146, would create a committee of the House of Representatives composed of five members to (1) investigate the hospital problem throughout the United States to determine the number of hospital beds available for marines, soldiers, sailors, coast guardsmen, members of the merchant marine, and any and all persons engaged in warfare; (2) investigate the use of existing civilian hospital facilities; (3) study the hospital problem in the United States as a whole as affecting not only war industries but industries in general throughout the country; and (4) report in writing to the Congress the results of such investigations, together with recommendations.

* * *

Benefits for Veterans.—The President, on March 17, approved H. R. 1749, a bill to amend Veterans' Regulation No. 10 to grant hospitalization, domiciliary care, and burial benefits in certain World War II cases. This bill has for its purpose, as explained by the Senate Committee on Finance, the granting of medical and hospital treatment, domiciliary care and burial benefits under laws administered by the Veterans' Administration to certain veterans of World War II on a parity with veterans of World War I, regardless of the nonexistence of a service-incurred disability. The existing law provides such benefits for veterans other than those of World War I and prior wars, only if the veteran has been discharged for disability incurred in service in line of duty or is in receipt of pension for service-connected disability.

Law Governing Rest Homes Having Good Effect, Report Shows

Safety and health hazards in Ohio's rest homes were materially reduced the first year in which the state law governing the licensing of rest homes for the aged was in operation, according to a report recently made by Karl R. Babb, chief of the State Division of Aid the Aged, to Charles L. Sherwood, State Welfare Director. Since the law became effective January 1, 1942, the division has licensed 159 homes and denied licenses to 21 others. In addition, approximately 160 homes voluntarily quit business since the state law went into effect, most of them presumably because they failed to meet necessary requirements. The division chief stated that over 5,000 Ohio old people, more than half of them recipients of aid to the aged, live in rest homes.

American Hospital Association Appoints New Secretary

Mr. George Puffer Bugbee, superintendent of City Hospital, Cleveland, has been appointed executive secretary of the American Hospital Association, effective May 1. He will succeed Dr. Bert Caldwell, who has been named secretary emeritus. Mr. Bugbee has served as credit and office manager and assistant director of the University Hospital, Ann Arbor.

Dr. Sproull Retires as Secretary In Adams County After 43 Years

Secretary of the Adams County Medical Society since 1900, Dr. O. T. Sproull, West Union, declined re-election this year, feeling that he did not want the responsibility any longer. He was a charter member of the society when it was organized in 1886, and through the years he has been a wheel-horse of medical organization in Adams County. A familiar figure at state, district and post-graduate medical meetings, Dr. Sproull has practiced in Adams County ever since he graduated from the College of Physicians and Surgeons, Baltimore, Md., in 1886. His successor as secretary of the Adams County Medical Society is his daughter, Dr. Hazel L. Sproull, associated with him in practice at West Union.

Obstetrics Board Examinations To Be Held May 20-25, Pittsburgh

General oral and pathological examinations (Part II) for all candidates will be conducted at Pittsburgh, Pennsylvania, by the American Board of Obstetrics and Gynecology from Thursday, May 20, through Tuesday May 25, 1943, at the Hotel Schenley, Pittsburgh. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates.

The Office of the Surgeon-General (U.S. Army) has issued instructions that men in service, eligible for Board examinations, be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations whenever possible.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Ohio Physicians Appointed

The Board of Trustees of the American Medical Association recently made a number of appointments to fill vacancies on various councils, committees and editorial boards. Included were the following: *American Journal of Diseases of Children*, Dr. A. A. Weech, Cincinnati, to succeed Dr. A. Graeme Mitchell, (deceased); *Archives of Neurology and Psychiatry*, Dr. Charles D. Aring, Cincinnati, to succeed Dr. S. W. Ranson, (deceased); Council on Pharmacy and Chemistry, Dr. Harold N. Cole, Cleveland, reappointed.

Plain City—Dr. W. H. Lee is the new president of the Madison County Board of Education.

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In Memoriam

Charles Calerdine Crawford, M.D., Cleveland; University of Wooster, Medical Department, Cleveland, 1905; aged 62; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 12. One of the founders of Glenville Hospital, Dr. Crawford practiced in Cleveland for 35 years. Active in the management of the hospital since its establishment, he had been president of the board, president of the staff and treasurer. His widow and his mother survive.

Marvin D. Fitch, M.D., Columbus; Medical College of Ohio, Cincinnati, 1897; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died April 8. Dr. Fitch practiced in Columbus for nearly 46 years. He was a member of the Methodist Church. Surviving are his widow, a daughter, a sister and a brother.

Norval Albert Hamilton, M.D., Franklin; Miami Medical College, Cincinnati, 1890; aged 74; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 28. Dr. Hamilton had been prominent in the professional and civic life of Franklin and Warren County for 53 years. He was a former secretary to the Warren County Medical Society; delegate to the State Association and member of the society's war participation committee. Only last March he relinquished the chairmanship of the Warren County Draft Board, a post he had held since the organization of the board in October, 1940. Dr. Hamilton was a charter member and former president of the Franklin Rotary Club, in which he had only three absences charged against his attendance record since the organization of the club in 1922. Throughout his life he retained an active interest in Masonry. Dr. Hamilton was also active in Red Cross work and for many years was a member of the Warren County Board of Elections. Surviving are his widow and a son—Dr. Wm. S. Hamilton, Cincinnati.

Edward A. Harper, M.D., Columbus; Columbus Medical College, 1892; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died April 2. Dr. Harper retired six years ago after having practiced in Columbus for over 40 years. Three sisters survive.

Charles A. Heaton, M.D., McCutcheonville; College of Physicians and Surgeons, Keokuk, Iowa, 1880; aged 88; died March 22. Dr. Heaton practiced in McCutcheonville and Wyandot County for over 60 years. His son, Dr. J. J. Heaton, Tiffin, two brothers and a sister survive.

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1890; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died March 20. Dr. Lewis formerly practiced in Fairfield County and at Mt. Sterling, retiring in 1919 because of loss of sight. He was a past president and active member of the Braille Club. His widow, two sons and a sister survive.

James F. Reynolds, M.D., Columbus; Columbus Medical College, 1887; aged 85; former member of the Ohio State Medical Association and the American Medical Association; died March 25. Dr. Reynolds retired in 1928 after having practiced for 30 years.

He first practiced in Homer, moving to Columbus in 1898. Dr. Reynolds was a member of the Masonic Order, the I. O. O. F., and the Methodist Church. A son and a daughter survive.

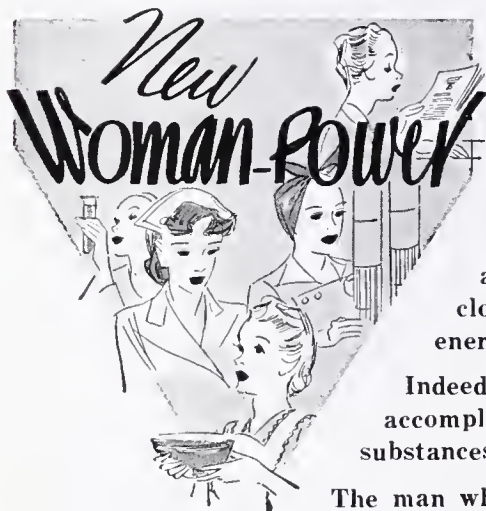
Alexander Michael Steinfeld, M.D., Columbus; Starling Medical College, Columbus, 1897; aged 70; member of the Ohio State Medical Association and the Clinical Orthopaedic Society; Fellow of the American Medical Association, the American Academy of Orthopaedic Surgeons and the American College of Surgeons; died March 25. Dr. Steinfeld practiced in Columbus for 46 years, and for many years was head of the Orthopaedic staff at Grant Hospital. In 1905 he took

postgraduate work at Vienna, Munich and Berlin. During World War I Dr. Steinfeld served as a captain in the Medical Corps of the U.S. Army. He was a member of the American Legion. Four sisters survive.

Chest Physicians Cancel Meeting

The 1943 annual meeting of the American College of Chest Physicians, which was to have been held concurrently with the annual session of the American Medical Association, was cancelled by action of the College's Board of Regents at their mid-winter meeting in Chicago. Among the physicians who attended this meeting were Dr. Joseph C. Placak, Cleveland, chairman of the Board of Regents, and Dr. Louis Mark, Columbus, Regent of the College for Ohio.

An actuarial audit of the Ohio Workmen's Compensation Fund begun by Joseph Froggatt and Co., Inc., New York, April 1, will require about three months to complete, according to a recent statement by Chairman Will T. Blake of the State Industrial Commission. The audit will cover premiums, classifications and all other matters involving administration of the Fund. Such an audit is required by law every five years.



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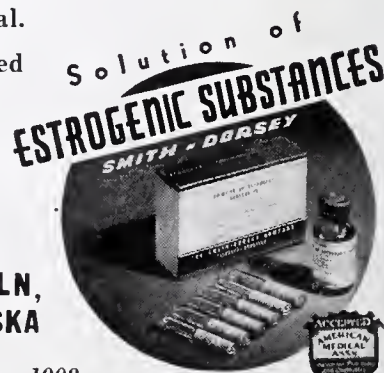
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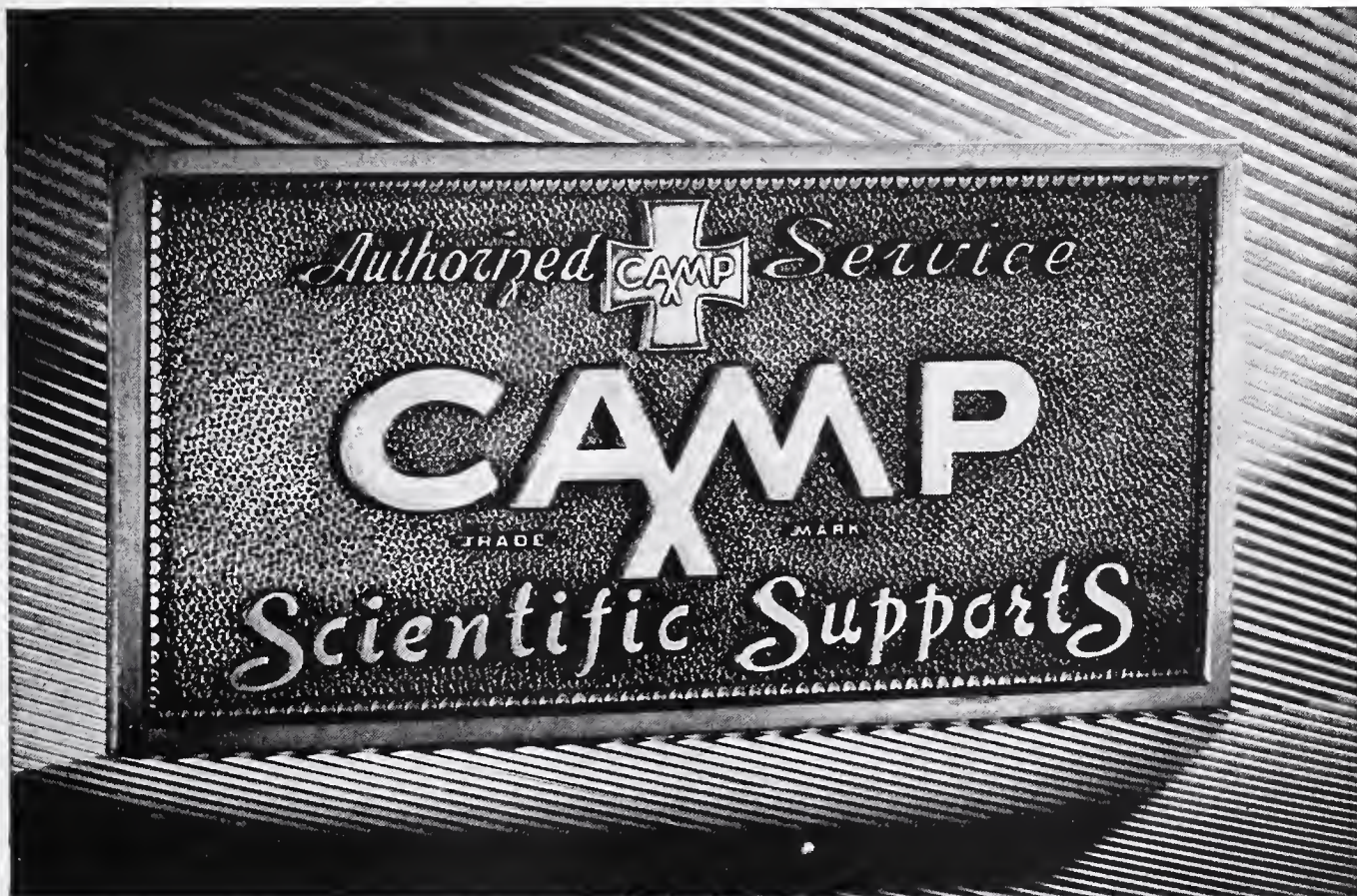
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Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)

ADAMS

A meeting of the Adams County Medical Society, April 21, at the Courthouse, West Union, began with a report by Dr. S. J. Ellison, West Union, delegate to the recent annual meeting of the Ohio State Medical Association. Dr. S. C. Clark, Cherry Fork, discussed "Medical Legislation". Following dinner, at which members of the society were guests of their colleagues in West Union, Dr. A. R. Quigley, Maysville, Ky., gave an address and Dr. John E. Hoberg, Columbus, spoke on "Urinary Infection, Stones and Tumors".—Hazel L. Sproull, M.D., secretary.

BUTLER

The diagnosis and treatment of various endocrine disturbances of the female patient was discussed by Dr. Harold Koppe, Dayton, in an address entitled "Amenopathies", at a meeting of the Butler County Medical Society, March 25, at Middletown.—F. W. Brosius, M.D., president.

CLINTON

Forty-four physicians and their wives from Clinton, Greene, Warren and Highland counties attended a dinner-meeting of the Clinton County Medical Society, April 7, at the General Denver Hotel, Wilmington. Dr. Jonathan Forman, Columbus, spoke on "Future of Medicine in America".—R. W. DeCrow, M.D., secretary.

HAMILTON

The following programs were presented by the Academy of Medicine of Cincinnati during April:
April 6—Hospital Night, program arranged by

the staff of Jewish Hospital. "Diagnosis of Vesical Neck Deformity by Means of X-ray", Dr. Ellis Flax; "The Use of Heparin and Dicoumarin in Peripheral Thrombosis and Embolism", Dr. Helen Iglauer Glueck; "Report of a Case of Parathyroid Adenoma", Dr. Douglas Goldman; "Report of a Case of Virus Pneumonia, with Autopsy Findings", Dr. Robert C. Rothenberg; "The Use of Photography in Hospital Practice", Dr. Philip B. Wasserman; "Roentgenological Demonstration of Cases of Regional Iletis", Dr. Samuel Brown.

April 20—"Studies in the Treatment of Burns", Dr. Vinton E. Siler; "The Red Cross Blood Transfusion Service in Cincinnati", Dr. Paul I. Hoxworth; "Studies in the Treatment of War Wounds", Dr. Wm. A. Altemeier.—Bulletin.

Dr. John Romano spoke on "Mental Health and the War," at a meeting of the Woman's Auxiliary, March 15, in the Woman's Building of the University of Cincinnati.—News clipping.

Second District

(COUNCILOR: H. C. MESSENGER, M.D., XENIA)

MIAMI

At a meeting of the Miami County Medical Society, April 9, at Stouder Hospital, Troy, Dr. Harry Wain, Miami County health commissioner, spoke on "Public Health Education", and a motion picture entitled "War Wounds", was shown through the courtesy of the Davis and Geck Co.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

The April 2 meeting of the Montgomery County Medical Society was held at the Dayton State



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Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

MARION

Miss Ruth Kleinmaier, canteen chairman for the Red Cross in Marion County, was guest speaker at a meeting of the Woman's Auxiliary to the Marion County Academy of Medicine, March 20, at Hotel Harding, Marion. Her subject was: "War Time Health and the Market Basket."—News clipping.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during April:

April 2—General Meeting. "Allergy: A Comprehensive Review", Dr. K. D. Figley.

April 9—Section on Pathology, Experimental Medicine and Bacteriology. "The Significance of the Rh Factor in Intragroup Transfusion Reactions and Erythroblastosis Fetalis", Dr. A. P. Falkenstein.

April 16—Medical Section. Roundtable discussion on the "Interpretation of Clinical Laboratory Procedures", by The Toledo Pathological Society.

April 23—Surgical Section. Clinical-pathological conference by Drs. Bernhard Steinberg, L. F. Smead and J. L. Stifel.

April 30—Eye, Ear, Nose and Throat Section. "S' type Infections", Dr. L. R. Effler; "Observations on the Use of Glasses", Dr. L. C. Ravin.—Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following programs were presented by the Academy of Medicine of Cleveland in April:

April 2—Clinical and Pathological Section. Case reports. "Surgical Endometriosis", Dr. L. W. Krauss; "Actinomyces of the Right Fallopian Tube", Dr. M. Garber and Dr. A. M. Young; "Osteotomy of Both Condyles for Correction of Mandibular Deformity (Protrusion)", E. Reiter D.D.S.; "Osteogenic Sarcoma of the Femur", Dr. L. E. Papurt; "Spherocytosis with Hemolytic Anemia and Icterus", Dr. M. I. Siegel; "Gall Bladder Disease with Abnormal E.K.G. Findings", Dr. H. M. Gans and Dr. E. H. Adler.

April 9—Joint Meeting, Experimental Medicine

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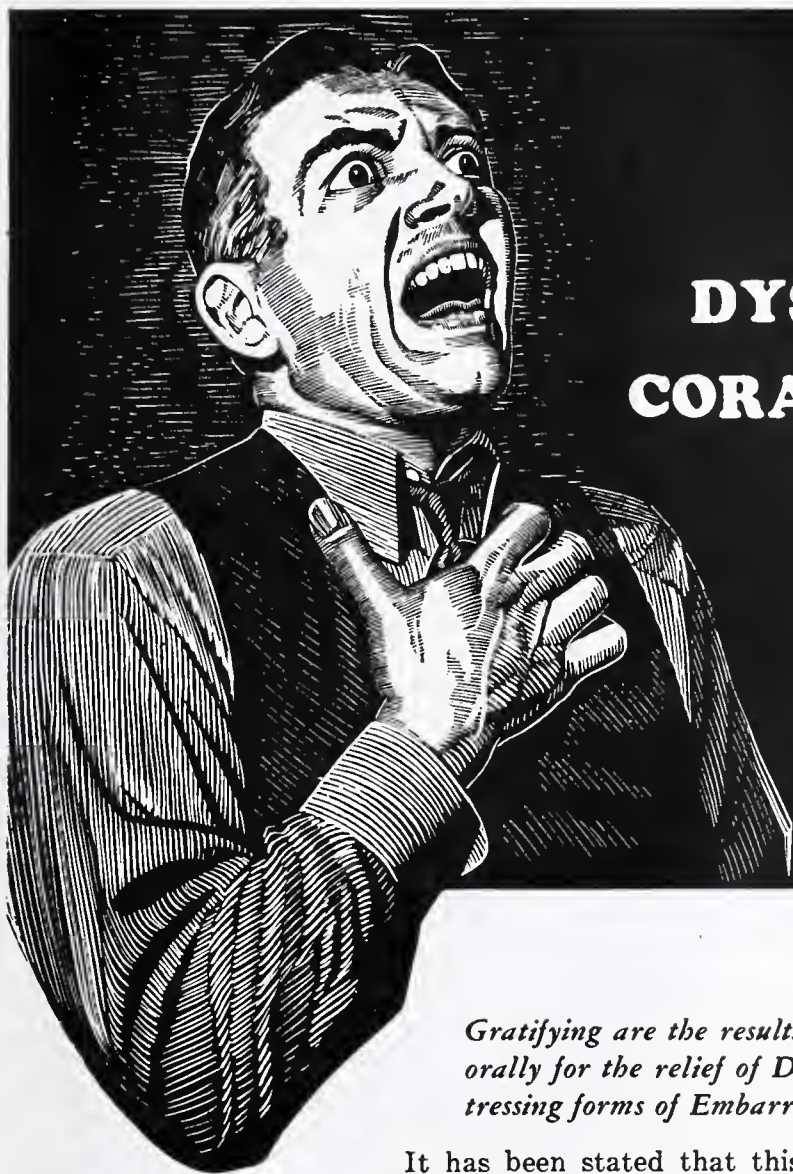
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¹Lankford, J. S., "Coramine," Clinical Medicine & Surgery, 37, 670, 1930.

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SUMMIT, NEW JERSEY

Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Chemical Nature of a New Steroid Isolated from the Urine of a Boy with an Adreno-Cortical Carcinoma", Dr. H. Hirschmann; "Independence of Serum Cholesterol from Exogenous Cholesterol", Dr. Walter Heymann and Dr. Frank Rack; "Human Complement", E. E. Ecker, Ph.D., L. Pillemer, Ph.D., S. Seifter, B.S., T. F. Dozois, Ph.D., and C. L. San Clemente, Ph.D.

April 14—Internal Medicine Section. Round Table Discussion on the "Treatment of Anemia", by Dr. Charles A. Doan, professor of medicine, Ohio State University College of Medicine; Dr. Russell L. Haden, Dr. Robert W. Heinle and Dr. Harley A. Williams.

April 14—Pediatric Section. "An Interesting Case of Bronchial Asthma", Dr. Arthur J. Horesh; "Behavior Problem in a Diabetic Boy", Dr. Wilmot F. Schneider; "A Case of Dwarfism—Probably Morquio's Disease", Dr. Regis F. Golubski; "Two Cases of Loeffler's Syndrome", Dr. Walter Heymann; "Multiple Anomalies in a Newly Born with Autopsy Findings", Dr. Joseph E. McClelland; "Roentgenograms of Special Interest", Dr. Charles H. York; "A Case of Ulcerative Colitis", Dr. Paul Gyorgy; "Osteosarcoma of the Fibula", Dr. Norman C. Weitzel; "A Case of Acrodynia Treated With the Uvag Method of Hulschinsky", Dr. Henry J. Gerstenberger.

April 21—Industrial Medicine and Orthopedic Section. "Treatment of Slipped Capital Femoral Epiphysis", Dr. Maxwell Harbin; "Resection of the Elbow for Tuberculosis", Dr. Clarence Heyman; "Tibio-Fibular Fusions and Amputations of the Leg", Dr. C. Glenn Barber; "Three Cases of Morquio's Disease", Dr. John A. Murphy—Bulletin.

LAKE

Mr. John Holden, laboratory and X-ray technician of the Lake County Memorial Hospital, was guest speaker at a meeting of the Lake County Medical Society, April 13, at Painesville. He spoke of the importance of chest films; his technique of G. I. complications; dye of gall-bladder cases; therapy of shock, and suggestions as to blood transfusions. The society was very much pleased with his talk, which was technical, practical, interesting and well worth-while.—E. S. Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

An address on "New Forms of Intravenous Anesthesia", was made by Dr. A. L. Turner, East Liverpool, at a meeting of the Columbiana County

Medical Society, March 9, at the American Legion home in Lisbon.—News clipping.

MAHONING

Dr. J. L. Reycraft, Cleveland, assistant clinical professor of gynecology, Western Reserve University School of Medicine, spoke on "Modern Methods of Diagnosis and Treatment of Sterility", at a meeting of the Mahoning County Medical Society, March 16, at Youngstown. "The Dietary Treatment of Certain Diseases", was the topic for discussion at the society's meeting on April 20. The speakers were: Dr. A. J. Beams, associate professor of clinical medicine, Western Reserve University School of Medicine, and Aileen Merwin, instructor, School of Dietetics, Western Reserve University.—Bulletin.

PORTAGE

Dr. William M. Skipp, Youngstown, spoke on "Practical Endocrinology", at a meeting of the

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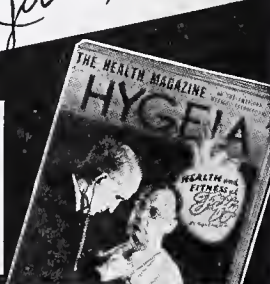
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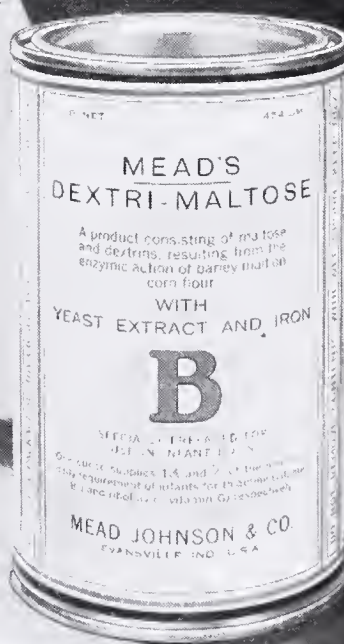
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Portage County Medical Society, April 8, at the Robinson Memorial Hospital, Ravenna. A representative of the Singer Sewing Machine Company gave a demonstration and showed motion pictures of that company's new automatic suturing machine.—Emily Widdecombe, M.D., secretary.

STARK

"Diagnosis and Treatment of Carcinoma of the Breast", was the topic discussed by Dr. Max M. Zinniger, associate professor of surgery, University of Cincinnati College of Medicine, at a meeting of the Stark County Medical Society, March 11, at the Elks Club, Canton.—News clipping.

SUMMIT

Dr. Paul Gyorgy, associate professor of pediatrics, Western Reserve University School of Medicine, spoke on "Vitamins: Their Clinical Application", at a meeting of the Summit County Medical Society, April 6, at the Nurses' Home, Akron.—Bulletin.

TRUMBULL

Officers of the Trumbull County Medical Society for the current year are: Dr. D. R. Mathie, Newton Falls, president; Dr. A. H. Seiple, Warren, secretary; Dr. R. D. Herlinger, Warren, chairman, legislative committee; Dr. P. C. Gauchat, Warren, chairman, war participation committee; Dr. Herlinger, delegate.—A. H. Seiple, M.D., secretary.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

HARRISON

Members of the Harrison County Medical Society have elected the following officers for 1943: Dr. Edward L. Miller, Bowerston, president; Dr. J. A. Toland, Jewett, vice-president; Dr. Dwight C. Pettay, Cadiz, secretary and treasurer; Dr. F. Foster Dye, Cadiz, chairman, legislative committee; Dr. C. F. Goll, Hopedale, chairman, war participation committee; Dr. Dye, delegate; Dr. Goll, alternate.—Dwight C. Pettay, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MUSKINGUM

Dr. Karl P. Klassen, Columbus, spoke on "Tuberculosis and Chest Surgery", at a meeting of the Muskingum County Academy of Medicine, April 7, at the University Club, Zanesville.

Officers of the society for the current year are: Dr. I. W. Curtis, New Concord, president; Dr. S. S. Daw, Zanesville, vice-president; Dr. Beatrice T. Hagen, Zanesville, secretary and treasurer; Dr. Robert S. Martin, Zanesville, chairman, leg-

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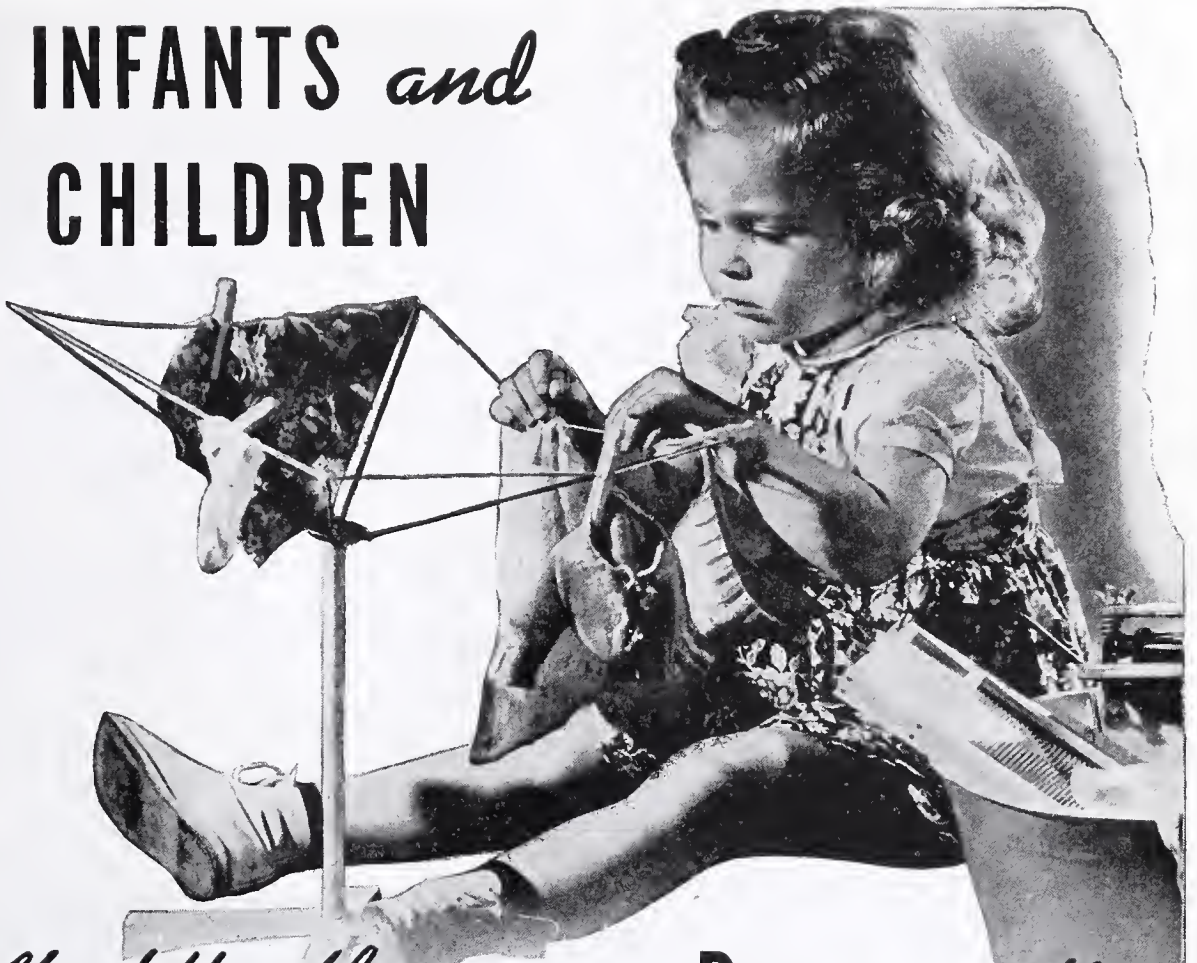
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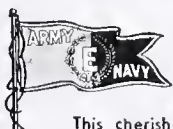
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islative committee; Dr. Fred W. Phillips, Zanesville, chairman, war participation committee; Dr. M. A. Loebell, Zanesville, delegate; Dr. C. F. Sisk, alternate.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

The following Marietta physicians are officers of the Washington County Medical Society for 1943: Dr. J. F. Weber, president; Dr. J. A. McCowan, vice-president; Dr. E. W. Hill, Jr., secretary-treasurer and chairman of war participation committee; Dr. S. S. Edwards, chairman, legislative committee; Dr. Weber, delegate; Dr. McCowan, alternate.—E. W. Hill, Jr., secretary.

Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D., COLUMBUS)

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during April:

April 5—"Immunization Against Infectious Diseases", a 45-minute natural color motion picture prepared by Drs. McKhann and Towsley of the department of pediatrics, University of Michigan Medical School. The film was discussed briefly by Dr. Elmer G. Horton, emeritus professor of pediatrics, Ohio State University College of Medicine, and Dr. Henry Wilson, instructor of medicine at Ohio State. Refreshments were served by the Wendt-Bristol Company.

April 19—"Highlights of Medical Literature in the Past Twelve Months", Dr. James H. Warren. Refreshments by the Woman's Auxiliary.—Bulletin.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

A program consisting of films of "Regional Anatomy", "Colon Surgery", and "Vaginal Surgery", was presented at a dinner meeting of the Ashland County Medical Society, April 9, at the Ashland Country Club.—L. Harold Martin, M.D., secretary.

LORAIN

Dr. Ernest F. Bright, Cleveland, discussed "The Treatment of War Injuries", at a meeting of the Lorain County Medical Society, April 13, at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

RICHLAND

At a meeting of the Richland County Medical Society, April 15, at Mansfield, Dr. Willis E. Wygant spoke on the topic "The Richland County Venereal Clinic".—John F. McHugh, M.D., secretary.

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tion of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

Do You Know - - -

Dr. Barney J. Hein, Toledo, chairman, Committee on Industrial Health, Ohio State Medical Association, spoke on "Management of the More Common Industrial Fractures," at the post-graduate industrial medical and surgical conference, sponsored by the Committee on Industrial Health of the Michigan State Medical Society, in cooperation with the Department of Postgraduate Education, University of Michigan, April 8, at Detroit.

* * *

The regular annual session of the House of Delegates of the American Medical Association will be held at Chicago, beginning Monday, June 7. There will be no scientific assembly this year.

* * *

The Kelley-Koett Manufacturing Company, Covington, Ky., producers of X-ray equipment, has been presented with the Army-Navy Production Award for excellence in war production.

* * *

Speakers at the All-Ohio Safety Congress sponsored by the State Division of Safety and Hygiene at Columbus, April 20-22, included: Dr. C. D. Selby, Detroit, Medical Director, General Motors Corporation, and former President of the Ohio State Medical Association, "Occupational Diseases Can Be Controlled"; Dr. Christopher Leggo, Columbus, chief, Bureau of Industrial Hygiene, State Department of Health, "Industrial Skin Diseases and How to Control Them"; Dr. R. C. McKay, Cleveland, member, Silicosis Board, State Industrial Commission, "Silicosis".

* * *

Dr. Howard Whitehead recently celebrated the fiftieth anniversary of his medical practice in the Hilltop section of Columbus.

* * *

The E. R. Squibb & Sons, which is making pharmaceuticals for the armed forces, has been notified that the Army-Navy "E" awarded to the company for excellence in war production has been renewed for another six months.

* * *

New officers of the Tri-State Medical Society include: Dr. E. Benjamin Gillette, Toledo, president; Dr. O. P. Klotz, Findlay, secretary; Dr. G. E. Jones, Lima, and Dr. John L. Stifel, Toledo, counsellors. They were elected at the society's 70th annual meeting at Ann Arbor, April 14. The 1944 meeting will be held in Toledo.

* * *

According to a recent article in *Public Health Reports*, there were 51 all-county health units in Ohio on June 30, 1942, compared with 39 such units on December 31, 1935.

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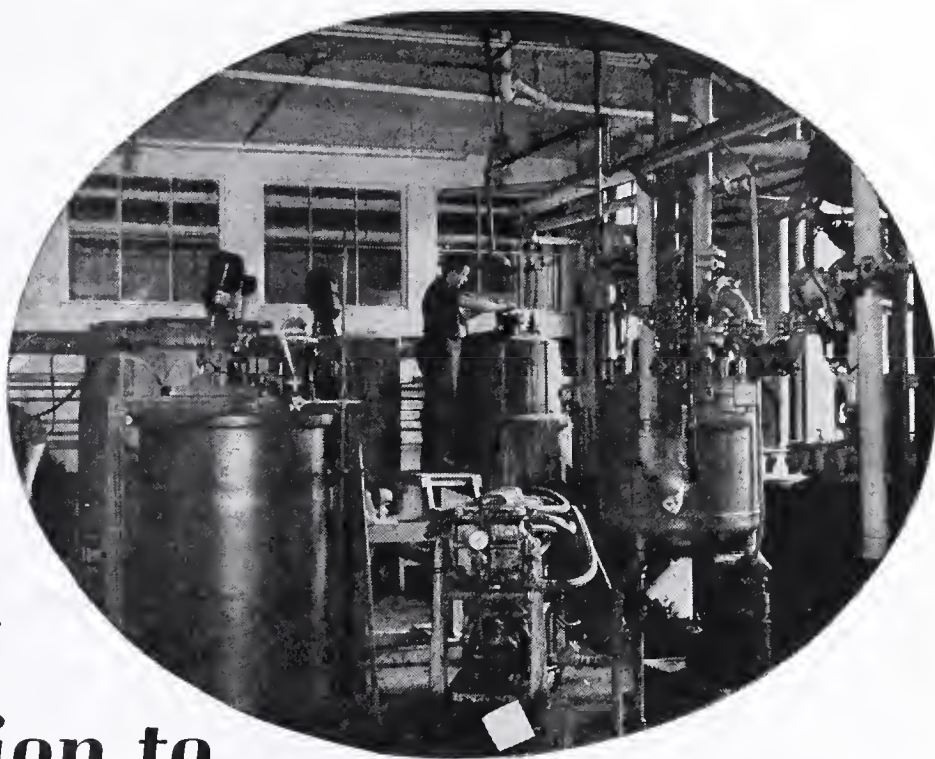
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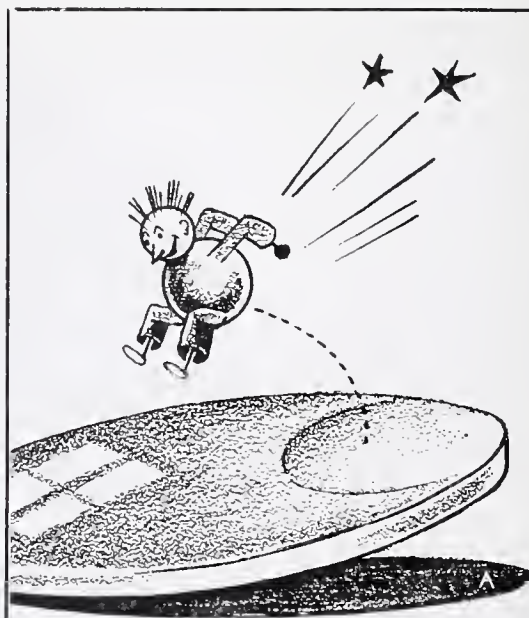
The Physician's Bookshelf

Famillial Nonreaginic Food Allergy by Arthur F. Coca, M.D. (\$3.00, *Charles C. Thomas, Springfield, Illinois*) presents the author's evidence for this new type of allergy. It is all so new that no one can help being interested and certainly no one can accept the author's thesis as proven. This is a monograph of personal research and clinical study by a man who has contributed much to modern clinical allergy. Yet this contribution demands a good deal of confirmatory investigation before it can be adopted by the profession. It involves pulse acceleration and the vasomotor nervous system to such an extent that one must have the benefit of physiological consultation. One of the earliest forms of evidence and the one upon which empirical medicine was built was the case report. The old formula, "He had that—I gave him this—he got well," is nowhere more dangerous in modern medicine than in allergy. So while we do not wish to detract from this notable contribution, which will, we hope, stimulate a great deal of clinical observation and investigation, it stands for the moment as the report of one man's clinical observations.

Social Insurance and Allied Services, Report by Sir William Beveridge, (\$1.00, *The Macmillan Company, New York*) is an American Edition reproduced photographically from the English Edition. The importance of this report as a basis for the consideration of post war problems can hardly be overestimated. Those of our profession who are asleep about pre-payment medical service plans for people of limited income will do well to read this report to learn what may be the possibilities confronting them when they do awake.

Diet Without Despair by Marion White, M.S., (\$1.50, *M. S. Mill Co., Inc., 266 Fifth Ave., New York City*) is a book in which the author tries to help cut down the calories pleasantly. It contains a complete calories chart, a list of menus and a chapter of encouraging words. For low calorie recipes the book is well worth its price. As an illustration: an egg contains one hundred calories, but only ten of them are in the white; a cup of sugar (if you can get it) contains 1600 calories but the same amount of sweetness can be obtained from 420 calories of honey. Whipped cream glorifies the pudding, but a good dab of it adds 350 calories to the daily total, whereas her Foamy Sauce is just as pretty and just as sweet, but it only adds 45 calories. So if you are interested in cutting down the calories by getting foods that do not stick to the ribs, you will find this book most welcome.

Vitality Through Planned Nutrition by Adelle Davis, M.S., (\$2.20, *The MacMillan Company*,



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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

New York) portrays the relationship of nutrition to health and vitality as the foundations for human happiness. It has been written under the inspiration of the late Dr. Mary Swartz Rose. We all agree with the dream of both the author and her preceptor that every boy and girl should have the story of nutrition in such a way as to motivate their own selection of foods.

Fundamentals of Immunology by William C. Boyd (\$5.50, *Inter-Science Publishers, Inc., New York City*) is designed to serve as an introduction to immunology for medical students, chemists and biologists. Chief emphasis has been placed on serology, and a successful attempt has been made to establish the basic principles. The technique of approach is to state the modern opinion on the subject straight off, and try and explain it without reference to history. We older men have grown a little rusty on the topic and this book offers a good way to refresh ourselves.

Young Offenders, An Enquiry into Juvenile Delinquency by A. M. Carr-Saunders, Hermann Mannheim, and E. C. Rhodes, (\$1.75, *Cambridge University Press, New York*) is an English book which presents the experience of a special committee in the home Office of Education in making an inquiry into the whole matter of juvenile offenses. It is necessary reading for anyone who expects to discuss or deal with this problem.

Orthopedic Subjects, Written for the National Research Council, (\$3.00, *W. B. Saunders & Company*) is one of the volumes in the military surgical manual series. It presents the topic of un-united fractures and their treatment, injuries of the spinal column, compound fractures and osteomyelitis. The first section is by Paul B. Magnuson, the second by Arthur G. Davis, the third and fourth by J. Albert Key.

Psychosomatic Medicine by Edward Weiss, M. D., and O. Spurgeon English, M.D. (\$8.00, *W. B. Saunders & Company*) presents the clinical application of psycho-pathology to general medical problems. For many years the authors have been working together at Temple University Medical School. This book has grown out of case material given in their psychosomatic conferences. Fortunately for us in practice the book is so designed that we may very easily pick it up and read a chapter or two and put it down and start again someplace else if we have forgotten the page without any loss. We are going back to the common sense consideration of the whole patient. Every physician can therefore profit by reading this book.

Contraception and Fertility in The Southern Appalachians by Gilbert Wheeler Beebe, Ph.D., (\$2.50, *Published for the National Committee on Maternal Health, Inc., by The Williams & Wil-*



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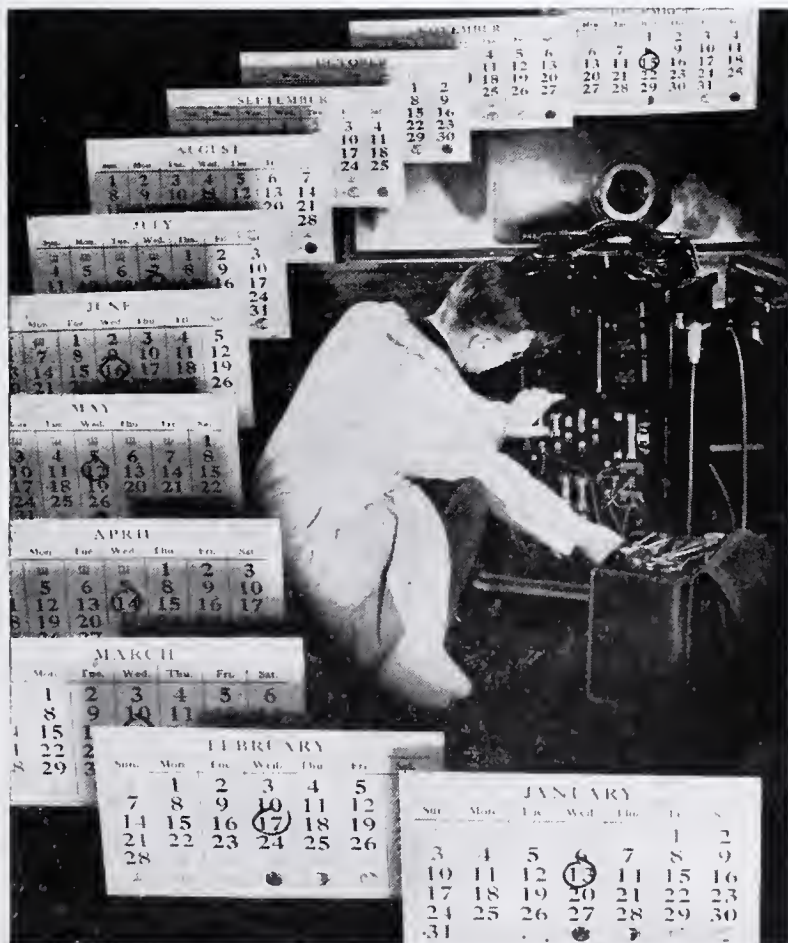
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kins Company, Batimore) is one of the series of books of medical aspects of human fertility published by this organization. It is a discussion of the inter-relationship between poverty and high fertility. It is an answer to the narrow question, "What is the likelihood that rural women of high fertility can be encouraged to practice birth control?"

A Necessary Sex Guide in Marriage by Edward Podolsky, M.D., and Winfield Scott Pugh, M.D. (\$3.00, *Simon Publications, Inc.*) is another manual in narrative form based on interviews between a man and his wife and their doctor. It seems adequate in its presentation with some interesting historical sidelights given throughout the text.

So You Feel Sluggish Today, The Causes and Treatment of Constipation by Harry Gauss, M. D. (\$3.00, *The Christopher Publishing House, Boston*) is a popular volume on this ever distressing complaint. It is a helpful and detailed program of living which emphasizes regularity and the following of the rules of hygiene.

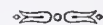
Diseases of The Breast by Charles F. Geschickter, M.D., (\$10.00, *J. B. Lippincott Company, Philadelphia, Pa.*) covers the subject in an adequate manner (829 pages) from the viewpoint of surgery, radiology, obstetrics, gynecology, and endocrinology. It gives all the details of pathological and laboratory technique. It presents a comprehensive and critical treatment of the subject and an analysis of an adequate amount of original material. It is a book that should be read by every student of pathology and by every surgeon.

Textbook of Clinical Neurology by Israel S. Wechsler, M.D. (\$7.50, *Fifth Edition, W. B. Saunders Company, Philadelphia*) is a new dress for this standard text. It gives a complete digest of what is known in neurology without stressing polemic material or giving detailed case reports. It appears mainly the personal teaching in clinical experience of its author and is therefore a most interesting book.

Essentials of Gynecology by Willard R. Cooke, M.D. (\$6.50, *J. B. Lippincott Company, Philadelphia, Pa.*) presents the subject concisely in 471 pages from the practical viewpoint and with as much correlation as is possible. It is well illustrated, easily read, and a satisfactory text. There has been a noticeable improvement in the appearance of medical textbooks in the last few years and this one is particularly attractive.

The Fifteenth Anniversary Number of The Hebrew Medical Journal. This volume commemorates the fifteenth anniversary of *The Journal* and is dedicated to a symposium on Peripheral Vascular Diseases.

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Vol. 39

June, 1943

No. 6

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Preventive Medicine In Industry

JOHN H. FOULGER, M.D., PH.D., F.A.C.P.

IN the introduction to his *Philosophy of History*, Hegel wrote: "Peoples and governments never have learned anything from history or acted on principles deduced from it." The fact that within 25 years two world wars have started from the same geographic nucleus, and for approximately the same reasons, would seem to confirm Hegel's opinion, at least in general. But, the general agreement does not exclude a particular disagreement. Have we learned anything about industrial medicine from the First World War, and if we have, are we applying that learning?

When the First World War commenced in July, 1914, Germany was far ahead of the Allies in knowledge of industrial organic chemistry, including the manufacture of modern high explosives. The British and French, and later, we ourselves, were obliged to set up large scale production of such compounds as T.N.T. with very little information on technical details, and no information on the possible hazards to health. The results were very unfortunate. In France and England, many cases of acute poisoning occurred, and much loss of time due to minor ill health. In England, this matter became the subject for very serious official medical investigation, and in 1916, instructions were issued to physicians in war plants, particularly shell-loading factories, by the Chief Medical Officer of the Ministry of Munitions, containing the following statements:

"Men and women doctors have been attending at the various filling factories in increasing numbers since it was first realized that all persons coming into contact with T.N.T. in any shape

The Author

● Dr. Foulger, Wilmington, Delaware, is a graduate of the University of Cincinnati College of Medicine, 1930; Director, Haskell Laboratory of Industrial Toxicology, Wilmington; Associate Professor of Industrial Health, Medical College, Richmond, Virginia.

or form could not escape absorbing it through the skin, respiratory or digestive tracts. These doctors should realize the distinction between preventive and curative medicine. They are not stationed there for the purpose of carrying out ordinary medical care of sick people."

And again, "It is of far greater national importance that the incidence of T.N.T. sickness should be lessened, and, if possible, completely stopped, than that this illness when established, together with any other disease that may occur in the factory, should be personally treated. The medical officer should understand the working of the factory from A to Z; he should be familiar with the housing, habits, rate of wages, and the traveling facilities of the employees; he should know the relative danger of each part of the filling process, and be able to offer definite advice as to improvement in sanitation, ventilation, heating, or weatherproofing of the various factories and sheds when, in his opinion, they are defective. General suggestions are usually of less value to the management than particular and detailed advice which is the result of skilled observation and consideration.

"Broadly speaking, it may be said that the

Read before a General Session, Ohio State Medical Association, at the Ninety-seventh Annual Meeting, Columbus, Ohio, March 31, 1943.

principal duties of the medical officer in T.N.T. factories are five:

- (1) Preliminary medical examination.
- (2) Periodic routine inspection.
- (3) Examination of cases.
- (4) Notification.
- (5) Responsibility for treatment."

Since 1916, the chemical industry in Great Britain and United States has progressed greatly, and in this country, that industry is now second to none in the world in efficiency and ingenuity. But, I am afraid it cannot be said that medicine has learned as much as industry from the experiences of the First World War. *

It is true that throughout the United States, for the last several months, interest in industrial medicine has spread, and every attempt is being made to preach the importance of medicine in all branches of the war industries. But, far too often, it is not realized that the situation described so clearly by the Chief Medical Officer of the British Ministry of Munitions in 1916 is still pertinent. The function of the doctor in industry is to lessen and, if possible, stop sickness, and particularly sickness due to industrial environment. It is not his primary function to treat cases which may have occurred as the result of his failure in prevention. Recent literature, and intensive courses on industrial medicine still emphasize diagnosis and treatment, and seldom point out the importance of a proper, practical scheme of prevention.

A program of preventive medicine cannot rely on the same medical learning as is required for diagnosis and treatment. It cannot depend upon biochemistry or serology or pathology, or the usual laboratory adjuncts of clinical diagnosis. It can be successful only if it is based upon a thorough knowledge of physiology and an ability to detect the slightest departure from the usual good health of workers.

Prevention is much more difficult than diagnosis or treatment, though often, of course, it is less spectacular, and one cannot write interesting articles about cases which do not occur. A program of preventive medicine must be based upon a systematic selection of workers for the job which they are to do, followed by continuous observation of those workers while on the job.

The need for an understanding of the working of a plant was clearly pointed out in 1916. No industrial physician can function properly and successfully unless he knows the operations carried on in the plant under his control, and the degree of health hazard in those various operations. With such knowledge, he can set up a selective employment examination, which will allocate workers according to their physical ability to withstand the health hazards of the

job, and with such knowledge he can carry out properly timed periodic examinations.

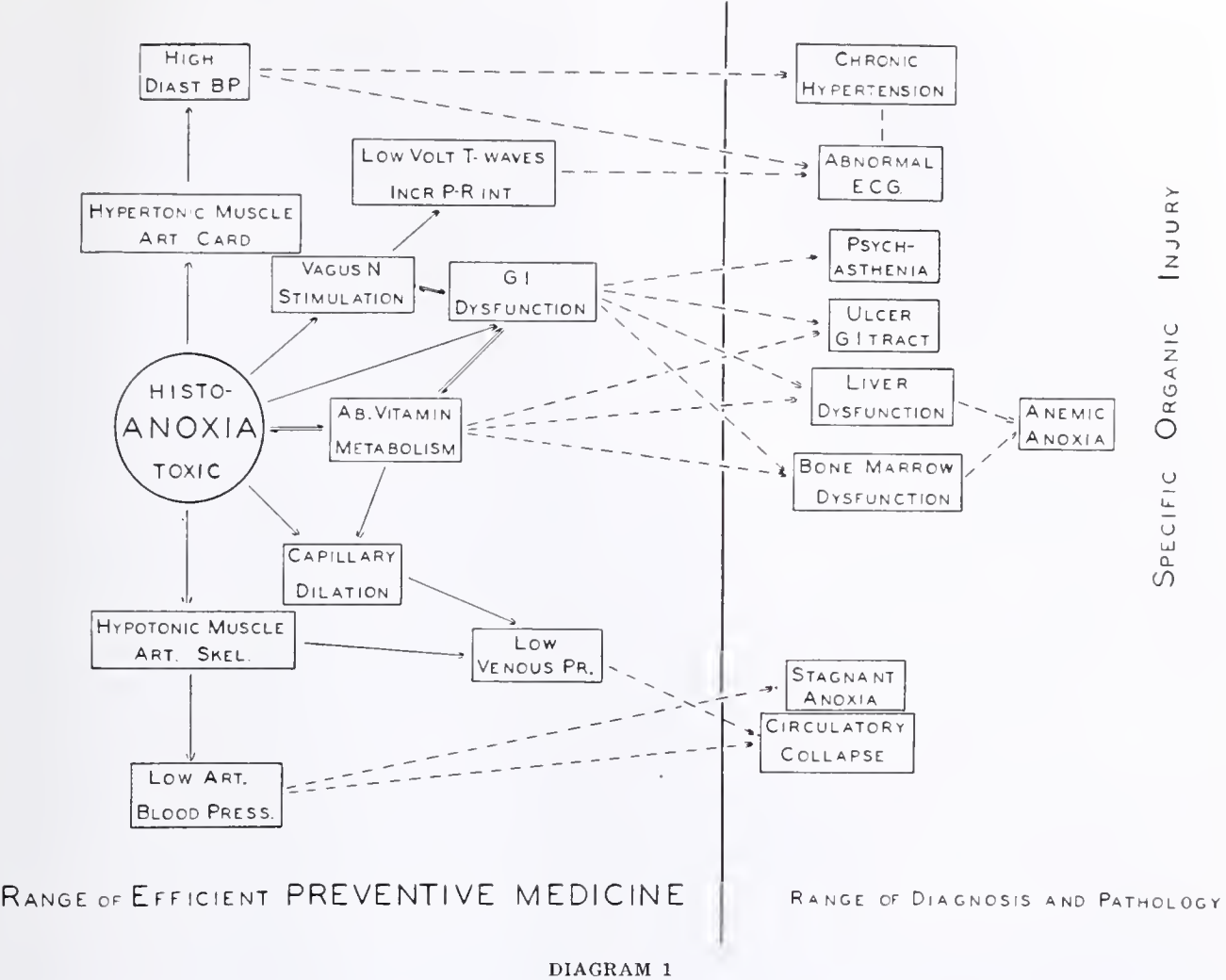
In a majority of important war plants, the most serious hazards to health arise from exposure to industrial chemicals, for very few industries can now completely dispense with the use of chemicals at some stage. In the steel industry they may be used for degreasing, for case hardening, or for paints. The same uses may occur in shipbuilding, or in the making of tanks. In the airplane industry, solvents again may be used as degreasers or as paint removers, or paints may be sprayed. In the manufacture of small arms ammunition, in addition to the chemicals employed in the preparation of metal shell cases, there are also the chemicals used in primers and propellants and, of course, a very large part of war industry is devoted to the production of explosives in some form or other, and these explosives are very definitely potentially hazardous chemicals.

It is sometimes imagined that his lack of knowledge of toxicology is one great difficulty confronting an industrial physician in the setting up of a program of preventive medicine. But toxicology deals with the ultimate action of poisonous chemicals upon the human body as shown by application of the procedures of diagnosis and pathology. If the plant physician realizes that his job is not to diagnose and treat but to prevent, he will find that a lack of detailed, or wide knowledge of toxicology is not necessarily a handicap.

EXAMINATION PROCEDURES

The selective employment examination and the periodic examination of the worker while at work must contain procedures which allow of detection of physiological change, not of organic injury. Unfortunately, conventional industrial toxicology as presented in the literature gives little information in this field. During the last five years, it has been necessary that the Haskell Laboratory collect information, which can be used immediately by plant physicians to protect the health of thousands of workers in the chemical industry. It has been essential that such information be applicable to a very wide range of chemical hazards, some of them at present perhaps not recognized, for the chemical industry is so productive in new materials that continuous study by all the toxicological and physiological laboratories in this country could never keep pace along lines of conventional toxicology with the wealth of new materials developed and used.

As a result of examination of thousands of records on workers in the chemical industry and a study of intact laboratory animals under controlled conditions, it can be shown that the earliest effects of exposure to harmful chemicals are the same no matter what the chemical nature



of the material employed. It is only when actual injury to organs and tissue has occurred that specificity of action of chemicals appears.

Diagram 1 summarizes the major points in this early action. It emphasizes particularly the fact that chemicals, when absorbed into the body by any route, if they have a systemic rather than a local action, first interfere with the oxidation-reduction mechanisms going on in the individual cells of all tissues of the body. This interference may not lead to a measurable response from all regions of the body, but those tissues most sensitive to the interference react early, and their reaction is shown by very definite trends.

From these early physiological trends, we must choose such as can be used first in our selective employment examination, and later in our periodic examination of men at work. This choice must be made with careful consideration of certain criteria for frequent examinations of workers in industry.

If a program of frequent examination of workers is to be set up, it must be realized that since the time taken by the examination is time away from the job, the form of examination must be such as to obtain in as short a time as possible a maximum of information. This informa-

tion must allow of the following of trends away from or toward the normal state of health shown by the worker in the preemployment examination. Trends can be followed only if the data of the examination are presented numerically and not as matters of disputable opinion. It is quite obvious in looking at our diagram that the only change shown in the "range of practical preventive medicine", which at the moment is easily measured in a few minutes and expressed numerically, that is, in a form subject to statistical analysis, is a change in blood pressure. Therefore, we have devised and used a procedure for the measuring and recording of blood pressure, which we have found extremely sensitive in following trends in the physiological condition of all kinds of workers in industry.

It is unfortunate that the voluminous literature on the measurement of blood pressure, with its rather defeatist attitude, is based mostly upon records of sick people, or upon statistics from insurance data in which the multitude of measurements masks the fact that many of them were made by inaccurate methods. Our scheme has been based upon a study of well over 100,000 records obtained at preemployment examination of workers, and during periodic examinations on those same workers while at work. Contrary to

the statements of clinical literature, the blood pressure of a healthy man does not vary beyond rather narrow limits. Age per se is not a vital factor. The usual so-called "age trend" of blood pressure is due to those incidents which necessarily accompany biological age, such as infection, chronic disease, change in social status, or psychic disturbance. The extent to which these factors affect blood pressure can be determined when a proper system of study of blood pressure is established.

MEASUREMENT OF BLOOD PRESSURE

The use of the blood pressure system depends upon a proper standard procedure for the measurement of blood pressure. Such a procedure was advocated in an article entitled: "Standard Method for Taking and Recording Blood Pressure Readings" by the Committee for the Standardization of Blood Pressure Readings of the American Heart Association and the Committee for the Standardization of Blood Pressure Readings of the Cardiac Society of Great Britain and Ireland, *J.A.M.A.* 113:294-297 (July 22) 1939. Having correctly measured the blood pressure, there must be some scheme by which to follow its trend. We have followed the trend of blood pressure by setting up a scoring system, giving a score to each recorded measurement of diastolic pressure and pulse pressure according to the distance from means established for a large normal population. The details of this procedure have been published elsewhere ("Industrial Exposure to Toxic Chemicals" by J. H. Foulger and A. J. Fleming, *J.A.M.A.* 117:831-836 (Sept. 6) 1941; "Prevention of Ill Health in Industry" by J. H. Foulger, *The Medical Clinics of North America*, 1145-1160, July, 1942, and "Medical Control of Industrial Exposure to Toxic Chemicals" by J. H. Foulger, *Delaware State Medical Journal*, Vol. 15, Nos. 2 & 3, February and March, 1943).

Having set up this scheme, we find definite statistical limits to the occurrence of abnormal blood pressure scores by chance alone in a normal population, and we can calculate mathematically the probable occurrence by chance alone of abnormal blood pressure scores in any group of examinations under study. We can then express the situation of an individual or group of individuals in relationship to a normal standard population by using the ratio of the number of abnormal blood pressure scores collected on the individual or the group in a given time period to the maximum number of abnormal scores expected by chance alone in the whole group of examinations. This gives us an index which we call the "abnormality index R", which should not exceed 1.0.

Using this procedure, it is possible for the plant physician to gain that knowledge of the

hazards in various operations of his plant, which is essential first, for proper allocation of the men; and second, for proper periodic examination. He needs only to take the most recent examination results on occupation groups, score them by the blood pressure method, find the value of R, and so classify occupations in order of hazard.

When this procedure is carried out, and the physiological condition of groups of workers is followed for months or years from the date of their employment, some very interesting facts are disclosed. First, even in occupations in which men are known to be exposed to hazardous chemicals, the health of those workers is determined not only by the extent of exposure in the plant, but also by conditions to which the worker is subjected, or subjects himself, when away from the plant. To be able to withstand the action of chemicals, he must keep himself in a state of proper nutrition. His meals must be adequate as to total content of protein, fat, carbohydrates, minerals and vitamins, but they must also be adequate in distribution throughout the day. One great source of sickness and even of accident in our war plants is failure to eat a good breakfast, and often failure to eat a good lunch. The habit of neglecting breakfast because of late rising and hurrying to work, of eating a ridiculously meager or no lunch, and of then consuming a heavy meal at a time when fatigue interferes with digestion (that is, at the end of the day's work), is disastrous from the point of view of maintenance of health.

PROPER REST NECESSARY

The worker must have proper rest while away from work. Inadequate rest over night with inadequate sleep, or failure to rest over the week end, can make him extremely susceptible to concentrations of chemicals which would not normally affect him.

The family physician attending workers in industry must realize that therapeutic agents, especially the modern synthetic chemicals, are, themselves, poisonous, and that they can sensitize a worker to the action of low concentrations of chemicals which he may meet in industry.

The worker himself must refrain from habits of self-medication, for the drugs which he uses are often more potent than the chemical to which he is exposed in industry.

None of these situations of earlier physiological change in workers need reach the stage of clinical poisoning. Yet, they are extremely important as sources of loss of efficiency and of minor, vague, frequently undiagnosed sickness.

We hear much outcry these days against a tremendous loss of time from accidents as well as from sickness. During the last few years a very intensive study has been made of the cause

of accidents, and the type of individual prone to accidents, but relatively little study has been made of the medical background of accidents. A recent publication entitled: "Accident Prone-ness in Factories in Great Britain" in the Monthly Labor Review, December, 1942, summarizes a report on industrial accidents in England and points out first, that those workers most frequently involved in major accidents are also most frequently subject to minor accidents; and second, that there is a very close relationship between the medical condition of a worker and his proneness to accidents. This is extremely important. In the last few years, the idea of "accident-prone" individuals has been accepted as well established, but accident proneness, itself, appears to be looked upon as a situation beyond our control. If there is a correlation between the occurrence of sickness and the proneness to both minor and major accidents, it would seem obvious that a proper program of preventive medicine should be able to prevent accidents by attention to those minor medical situations which involve a worker in accidents.

Turning again to our diagram of the early physiological effects of chemicals, we would point out first that this trend of events is not confined to the action of chemicals to which a worker is exposed in industry, or chemicals with which he is treated by his physician, or which he takes in self-medication. It holds for any series of events which interferes with proper oxidation-reduction mechanisms in the body tissues. It holds, therefore, for disease, infection, malnutrition, fatigue, and deprivation of oxygen. It will be seen from the diagram that one important result of this physiological change is a low arterial blood pressure accompanying hypotonic skeletal musculature, and that these, together with low venous pressure and dilation of the capillaries can lead to circulatory collapse.

Our studies of workers in industry show that dizziness and unusual weakness are extremely frequent complaints. Dizziness may be due to three primary factors:

- a) Imperfection of vision
- b) Infection or injury to the middle ear or the vestibular apparatus including the vestibular nerve
- c) Inadequacy of the circulatory system to withstand changes in posture.

This third condition, inadequacy of the circulatory system, we have found to be extremely common in industry, produced by exposure to industrial chemicals, by chemotherapy, by malnutrition, or by lack of rest. A worker with an unstable circulation, so unstable as to make him dizzy, is improperly coordinated. He may injure himself or others by clumsy use of equipment. He may produce a major accident, or in a war explosive plant, a fatal explosion. That insta-

bility of the circulation may well be a leading factor in accidents is indicated by our recent study of the occurrence by hours of the work day of abnormal circulation in industrial workers. Diagram 2 shows the hourly trend in the values of the abnormality index R obtained in a study of workers tested by the Crampton test (The Gravity Resisting Ability of the Circulation; Its Measurement and Significance (Blood Ptosis) by C. Ward Crampton, Am. J. Med. Sciences, 160:721, Nov. 1920), and the trend of the value of R is compared with data obtained by the Pennsylvania State Department of Labor on the incidence of nonfatal accidents in the chemical

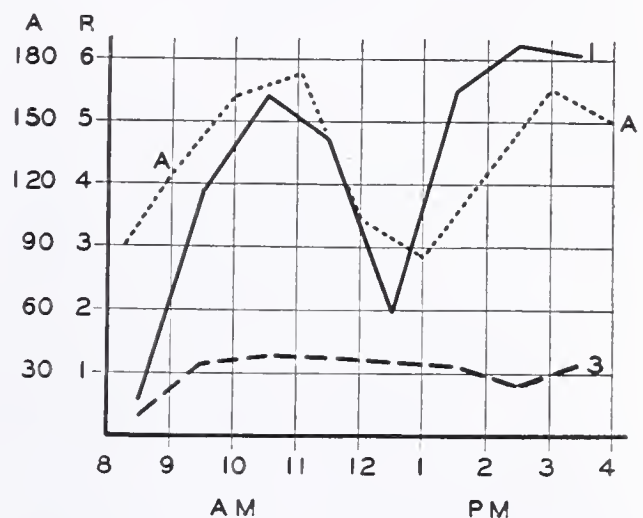


DIAGRAM 2

Full line, 1, shows hourly trend of $\frac{\text{Observed}}{\text{Expected}}$ abnormal Crampton values.

Dotted line, A, shows hourly trend of nonfatal accidents in the chemical industry in Pennsylvania during 1940.

industry during 1940. This trend of the Pennsylvania statistics does not differ from other trends calculated for accidents in general industry both in this country and in England. The similarity in trend of R representing an unstable circulation and the occurrence of accidents is sufficiently striking to suggest that there may be a very close correlation between instability of the circulation to withstand changes in posture and the occurrence of injury by accident.

We have recently made a similar study of different chemical exposures using our blood pressure scoring system and an index for the volume of blood flowing into the right heart (obtained by calculating the ratio of pulse pressure to diastolic pressure plus one-third pulse pressure; see J.A.M.A. and Med. Cl. of N. Am.). The trend of occurrence of abnormal blood pressure scores and of abnormal volume filling indices is almost identical with that of abnormal Crampton tests, and is again parallel to the known trend of occurrence of accidents in industry.

Present Day Influences In Industrial Health

CHRISTOPHER LEGGO, M.D.

THE magnitude of the industrial health problems which confront us are emphasized when we consider that Ohio is one of the first five states in the Union in industrial importance. Ohio's place is not likely to be lost when the war period is over because it has a tremendous number of stable industries whose present activities are conversions of old industries and not so many industries which have mushroomed to possibly later collapse like an umbrella.

Most war industries today have either growing pains from enormous expansion, or a headache from conversion to new productions, or both. Today's program by the Ohio State Medical Association is being devoted to a discussion of the analgesics for the headaches; the salicylates for the growing pains; and the anti-pyretics for the fever of abnormal industrial activity for which collectively the medical practitioners of Ohio may be able to prescribe.

I believe we can best evaluate the forces influencing industrial health today if we trace them historically. With a nod of Hippocrates and a bow to Rammazzini who wrote the first textbook on occupational diseases in Italy in the seventeenth century, we will start in the year 1907 when Theodore Roosevelt appointed a commission to study the needs of compensation insurance laws in the United States. Switzerland had a law since 1881, and Germany since 1883. As a result of the interest aroused by these findings the first laws were passed in 1909, but Wisconsin in May, 1911, passed the first which withstood the question of constitutionality. Ohio passed its law one month later and it came in force January 1, 1912. An epidemic of compensation laws broke out so that it was fairly common pattern by 1916. Today every state but Mississippi has a compensation law.

COMPENSATION INSURANCE

Before the passage of compensation laws an employee, on the basis of three common law defenses, stood a small chance of collecting for an industrial injury. He might occasionally hit the jackpot with a large award, but his chances would have been better today on a nickel slot machine. He had to seek, and obtain, his own medical care, had no income for periods of disability, and became one of the submerged tenth if he were permanently disabled. His job and his limb were usually amputated in the same accident. Neither the manufacturers, the doc-

The Author

● Dr. Leggo, Columbus, Ohio, is a graduate of McGill University Faculty of Medicine, 1919; Director, Industrial Hygiene Service, Ohio State Department of Health.

tors, nor the laborers, unanimously approved the introduction of Workman's Compensation. They feared it for reasons of their own.

If we emphasize the introduction of the compensation law I do not believe we will distort its importance as a present day influence in Industrial Health. Basically it has been the springboard from which our present programs catapulted. It gave the employer a proprietary interest in the results of injuries. It instantaneously aroused an interest in accident prevention and was largely responsible for the formation of the National Safety Council in 1914. It led to the development of safety engineering as a profession, and the Safety Engineer is, should be, and must be, an ally of the industrial doctor. By cooperating together they can accomplish wonders in a plant. Without active and friendly cooperation the programs of both will suffer.

In 1915 the American Public Health Association created an Industrial Hygiene Section. There are several in attendance here today who were at the first meeting of this section. It has carried on continuous activity and the crowded meeting hall of the last year particularly is evidence of the increasing interest among those who make up the membership of the American Public Health Association.

In 1916 there were enough physicians in industry to organize the American Association of Industrial Physicians and Surgeons at a meeting in Detroit. The influence of this group has been tremendous and it is still a strong and active organization. Ohio men have had their share in its formation as Selby, Geier and Hayhurst were among the founders. Demonstrations by the industrial surgeons in this period showed the employer what could be accomplished in reducing loss of time and consequently a reduction in compensation payments by adequate surgical care. Let it be said to the credit of numerous employers of this country that they did not stop with their legal responsibility once they had tasted the fruit of the compensation law. The many elaborate and efficient medical organizations within industrial establishments today are

Read before a General Session, Ohio State Medical Association, at the Ninety-Seventh Annual Meeting, Columbus, Ohio, March 31, 1943.

evidence of the willingness of numerous manufacturers to go further than the law demanded.

IMPORTANCE OF PERSONNEL DEPARTMENT

It was at this period, and greatly as a result of personal reaction on the part of John D. Rockefeller to the Colorado Coal Mine Massacre, that the personnel manager came into existence. Personnel Departments were organized when the employment clerk took off his sweater and put on a coat and vest. In the twenties many personnel managers expanded into Industrial Relations Managers. The importance of the influence of Industrial Relations or personnel man in the picture of Industrial Health cannot be over emphasized. At the least, he represents the viewpoint of management toward the medical profession; at the most, he may actually administer the medical program.

At this point I will rush into a subject where many fear to tread. There is a growing conviction and demand on the part of the many forces who represent medical personnel that they be administratively responsible to top management and not to a personnel department. I think we can throw some light on this subject, which has too often simply generated heat, if we point out that the difficulties in any given situation are likely to be caused by a confusion of thought on the difference between Administration and Function. It is when the lay administrator assumes functional capacity in medical activity that difficulties arise which are usually erroneously explained away as being "personal". The doctor employed in industry differs from all other employees. The Personnel Manager, the Safety Engineer, the Industrial Relations Manager, and all other executives belonging in industry are an integral part of industry and even though they change their capacity, they remain in industry. They are children of industry. The doctor was a physician before he became "plant doctor", and if he changes his employment he drops the "plant" from his title and returns to the community as a doctor.

It is this primary loyalty as a disciple of Hippocrates which has many times caused friction. When the doctor respects the administrative rights of the executive and the executive in turn respects the professional code of the doctor, the managerial level of administration becomes not quite so important.

In the early days of the compensation law the surgical care supplied was likely to be bargained for on a volume basis. Those who won the contracts were not always those who had shown themselves to be the most worthy in private practice and this raised further doubt in the minds of those practitioners who already had one shoulder in the air regarding this new thing. By the 1920's employers and insurance carriers

alike had begun to realize that the most skillful care was the cheapest, and they were referring more patients to those physicians who had proved their worth to the community at large.

Some research work and a number of occupational hazards surveys had been carried on by the United States Public Health Service, but a new chapter was begun in 1929 when Dr. Louis Schwartz was assigned to a study of occupational dermatoses. He has done a monumental work by simplifying the mysteries of the skin so that the average industrial practitioner can diagnose, handle, and control the average dermatological case in industry. By 1935, the Public Health Service had set a pattern of encouraging State Departments of Health to set up Industrial Hygiene Units. These services consisted as a rule of a team composed of a Physician, Industrial Hygiene Engineer, and a Chemist. Recently the Industrial Hygiene Nurse has been added to the staff in many states. Again the leadership of Ohio is evident when you recall that in this period when such an activity was new in most states, that there had been an Industrial Hygiene Division in the Ohio Department of Health for over twenty years, under the direction of Dr. Emery Hayhurst, who has won his place as a pioneer in Industrial Hygiene.

COUNCIL OF INDUSTRIAL HEALTH

In 1931 the American College of Surgeons fostered a survey of medical establishments in industry and established minimum standards and awarded approval of such firms whose medical departments met this minimum. The current activity of the American College of Surgeons today is not conspicuous, but this work carried out on so large and wide a scale has certainly been a tremendous influence, the effects of which are evident today.

In 1937, the American Medical Association which had been wearing a frown for many years began to raise its eyebrows. By 1939 it had broken out in a big smile in the form of Dr. Peterson and the Council of Industrial Health. With a little groping, and a little searching for directions, they relatively soon set their course and are now setting the pace over the nation. This is as it should be. Special societies may come, and go, and special services may reach a given group, but the one great common denominator of the mass of physicians of the country is the American Medical Association and its State and Local Medical Associations. If education is to be carried to the doctor and common standards are to be established, and sound practices are to be encouraged, and unsound practices are to be discouraged, the American Medical Association with its components is the force which must carry out the operation, not only now, but

for decades to come. It is because of their plans that you are to hear Dr. Peterson this morning.

This is the day of kaleidoscopic changes, when an adequate force of adequately trained help becomes a dream, when transient labor seems like a permanent fixture, when every employment office is like the Grand Central Station with more and better people leaving than there are arriving, when the ratio of men employed to women may be reversed in a month, when the 20 to 40 age group contains too few perfect physical specimens and there are not too many on either end of that age scale; when plant facilities are bursting their seams and community facilities have never even been basted together to hold the influx of population, when everyone with even the suspicion of a good intention seems to be trying to do everything today that might have been done yesterday but cannot possibly be accomplished until tomorrow, when old materials are being replaced with newer and more toxic ones, and the descriptive name of a firm tells you only what they manufactured before Pearl Harbor. This is a bare outline of the picture with which we are faced.

THE INDUSTRIAL NURSE

Never before has the interest in Industrial Medicine, Industrial Health, Industrial Hygiene, or component activities been as great as it is now. Never has skilled professional personnel been as scarce. Over the long term view the situation is not discouraging provided that by doing more and more, with less and less, we can keep the spirit alive, and active, until we are again joined by those who have left us temporarily to carry on elsewhere.

In the plants themselves many duties and responsibilities ordinarily carried on by the physician are of necessity delegated to the nurse or lay personnel. The State Department of Health has been cooperating with the Western Reserve University in presenting a course for Industrial Nurses in different areas of the state. Through this course and through the various Industrial Nurses Associations the Department has been calling attention to the directive of your State Medical Association issued in 1937 publicizing the necessity for standing orders signed by a physician for those who carry on any type of treatment or medical care. These standing orders will tend to place the functional activities of the nurse under medical supervision which is in accordance with the policies of State Medical and Nursing Associations. Again it is a case of administrative authority usurping functional prerogatives. In a legitimate effort to escape from the untenable position in which they are being placed, many of the nurses are now seeking from the plant doctor the protection of standing orders with which the Ohio State Medical Association

has stated they should be supplied. It is an opportunity for supervision which no member of the Ohio State Medical Association should neglect. Because the Council of Industrial Health has been preparing material on this subject, I have no doubt Dr. Peterson will speak of it further.

This brings us to the Industrial Nurse as a group of whom there are over 7,000 in the United States, and 725 in Ohio. They have existed in large numbers for over thirty years, and it is not at all unusual to find one who has been in the one position for a quarter of a century. It is fortunate that they are not "boomers" because their usefulness in a plant usually increases with their length of service. Up to the last few years, however, they have been isolated in their own plants. It is only recently that they have been organizing into professional associations either independently or as a part of Public Health Nurses Associations or the State Nurses Associations. In Ohio they have become a section of the State Nurses Association, and while I cannot speak for them, I can speak of them as an influence and as a group who would be useful allies for the Medical Association's program for Industrial Health.

I trust the Industrial Hygiene service of the Ohio Department of Health will be considered a sufficient influence in this state to justify some description.

The personnel consists of an Industrial Hygiene Physician, an Industrial Hygiene Engineer, an Industrial Hygiene Chemist, and an Industrial Nurse. Some of us are wearing the uniform of the United States Public Health Service, but our capacity is that of State Personnel. We have been assigned to Ohio to work in, and for, the Ohio Department of Health and entirely under the direction of the State Director of Health. The United States is a federation of States and not a true Union. Public Health is a function of each State Government which is not relinquished to the Federal Government. The services of the National Institute of Health and the U. S. Public Health Service, however, are available for consultations and advice.

STUDY OF ENVIRONMENT

Generally speaking, the engineer and the chemist will study the environment with the objective of recommending control measures for those hazards which may throw the workers physically out of adjustment with their environment. The medical personnel will be concerned with making those recommendations which will keep the workers in adjustment with their environment. In one sense the Engineering Division has the advantage. Once the dust, the fume, the gases, or the vapor has been subject to the control of the exhaust, or other control

measure, it obeys the laws of physics and remains controlled. No group knows better than medical men how untrue this is of people.

The field is so large, its needs for service so great, and the personnel of the unit so few, that we believe those areas which are heavily populated industrially can best be supplied service if the local government through its city and/or county Health Departments will set up their own local Industrial Hygiene Service. Several areas are already contemplating the employment of an Industrial Hygiene Engineer. While he alone cannot supply the complete service, he can supply the service which is most needed because it is now the least available. Few companies are large enough to be in a position to employ the Engineering Services of the few private agencies which exist. The employment of a well trained Industrial Hygiene Engineer by a local city government will constitute a useful direct service to the employers and employees of that area who are faced with hazards which can only be controlled by expert advice from specially trained personnel. The need for this service is not fully recognized by city fathers. I would ask that your local committees consider the appropriateness of such a service in your own community and that if such proposals are made and meet with your approval that you use your collective and individual influence to further the adoption of Municipal assistance.

PROMOTING BETTER HEALTH CONDITIONS

Another present influence in Industrial Health is the appearance of War Man Power Committees in many industries representing both labor and management to promote better health conditions. It is again proof of the statement that never was an interest in the subject of today's discussion so great.

It is hardly necessary to point out that the influences which we have been discussing have chiefly consisted of those medical or industrial groups whose chief interest has been industrial health in a broader sense. Time will not allow, nor would it be altogether appropriate, to discuss the many agencies or organizations who sponsor interest in a particular disease or some single phase program. An inherent advantage of a State Medical Association is that it is built on a broad enough base and represents a large enough number of general practitioners, as well as sections composed of those with individual specialties, that the over-all plan of activity is likely to be well balanced. If at any time the picture does become at all distorted, correction of the distortion does not take long.

I think we can well afford to consider for a minute the psychology of the patient, industry in a collective sense. We have indicated the willingness of so many industries to go further than the law requires. It is too easy to look on them

as a dumping ground for the community problems which have not been solved in, or by, the community. It is well to be able to differentiate what is industry's actual responsibility which they alone must carry, and which are the community's responsibilities. Industry is alive and sensitive to any effort to have them take a whole load as a result of their willingness to share a burden. Broadly speaking, those who have been engaged in Public Health can adopt one or two attitudes. They may say, "These are the problems which we have failed to solve in the community and which are plaguing you in your plant. Can you help us meet our responsibility?" This attitude is likely to win response and co-operation.

The other attitude is expressed by saying, "We have failed to meet these problems in the community, but now that most people are employed we tell you, their employers, that their problems are all yours. Take them, keep them, and solve them". This shortcut does not "click". Industry's sensitivity has not been lessened by the events beginning with the depression and still operating when their managerial environment has been subject to frequent disturbing influences and their ability to keep their employee-employer relations on an even keel, has been constantly taxed.

I have attempted to trace historically the development of some of the national organizations which constitute the frame work of the Industrial Health structure. Because it is a health problem the medical profession would not be wise to surrender through apathy nor neglect their natural paternal interest. A child, neglected, may seek his own direction. Other agencies can supply the guy ropes which support an over-all health program but the center pole of the structure should be the medical profession and its component groups. I have not appeared here to offer you a program, but to present a perspective of the forces which have been influencing the field.

In closing I wish to promise you that in whatever proposals or programs you adopt, that you will have the full cooperation of the State Department of Health and its Industrial Health Personnel.

Contact Dermatitis

One of the most characteristic features of contact dermatitis is intense itching. It is for the relief of this fury that the patient puts "everything in the drug store" on his already inflamed skin. My experience has been that salves, regardless of what is in them, fail to relieve itching in contact dermatitis. Many patients find that the application of calamine lotion or rubbing alcohol brings relief.—Thomas S. Saunders, M.D., Portland, Ore.: Northwest Med., Vol. 42, No. 5, May, 1943.

Physical Therapy In Relation To General Practice

FRANK H. KRUSEN, M.D.

PHYSICAL therapy has been defined as the treatment of disease by means of the physical, chemical and other properties of light, heat, water, electricity and mechanical agents including massage and exercise.

Physical therapy is at once the oldest and the newest fields in medical practice. It is the oldest field of medical practice because the use of physical agents in treatment of disease must have been inaugurated in the very beginnings of mankind. At some time prior to the Paleolithic Age, probably before the year 7,000 B.C., the first primitive man who crawled into the sunshine to receive the benefit of its warmth and vitalizing effect unwittingly started the practice of heliotherapy; the first man who bathed a wound in some woodland stream unknowingly instituted the practice of hydrotherapy; and the first man who rubbed a bruised muscle unconsciously introduced massage. It is the newest field of medical practice because only in the past few years has it come to be recognized as an integral part of regular medicine and because it is just beginning to be taught in medical schools.

Physical therapy is one of the most neglected fields in medicine. In this connection, Gregg,¹ Director of Medical Science in the Rockefeller Foundation, recently said: "A curious phenomenon in American medicine is the deft elimination of much reference to physical therapy. Almost as those who keep their children ignorant of the facts of life, we appear to protect the American medical student from the knowledge of physical therapy, mindful, I suppose, of the abuses imputed to osteopaths and chiropractors. Of course, there is much the same result: thus protected, our graduates angrily complain of competition from those whose knowledge it is tabu to acquire."

It is only within the past few years that well organized departments of physical therapy have been developed in the teaching hospitals of some of our larger medical schools. Thus, it has been only within the last few years that departments have been developed at Johns Hopkins University Medical School under Dr. Thomas Sprunt, at Stanford University Medical School under Dr. William Northway, at the teaching hospital of Yale Medical School under Dr. Muriel Downer and at the Massachusetts General Hospital under Dr. Arthur Watkins.

The hospital department of physical therapy

The Author

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should be conducted in much the same fashion as is the department of roentgenology or the clinical laboratory. Although technical personnel is employed to carry out the various procedures which are utilized, such technical workers should always serve under the direct medical supervision of a physician especially trained in the field. I have often quoted the statement of Elbert Hubbard that: "A man is generally 'down on' that which he is not 'up on'." This is particularly true of the attitude of some medical men with regard to physical therapy because of their limited knowledge of the subject. It probably would be wise for the average medical practitioner to get "up on" the subject of physical therapy because for an extensive group of patients physical measures can be employed advantageously.

At the Mayo Clinic, for example, approximately a twelfth of all the patients receive some form of physical treatment and I have been told that in military practice the number of patients who receive physical treatment is even greater. Thus, at the Walter Reed General Hospital in Washington, D.C., approximately a fifth of all patients are referred to the department of physical therapy for treatment. There is probably no other field of medicine which is employed so extensively and concerning which the average physician knows so little! We, as physicians, must make an effort to overcome this weakness in our therapeutic armamentarium. The family physician, if he will, can prescribe many physical measures just as he prescribes drugs. With a little ingenuity, many valuable physical procedures can be improvised for use in the patient's home.

LOCAL HEATING AGENTS

The action of conductive or convective heating is superficial because the penetration of heat is always slight. Local applications of heat will tend to raise the temperature in peripheral re-

¹Read before the Third General Session, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28, 29 and 30, 1942.

gions. They produce dilatation of blood vessels and an increase in the rate of flow of the blood. The tendency toward rapid dissemination of the heat finally may result in an increase in the systemic temperature.

A point worth keeping in mind is that local infra-red irradiation will produce a rise of temperature of a considerable volume of blood as it circulates through the cutaneous capillaries. The temperature of the blood will reach a level exceeding that of the average systemic fever without any appreciable rise in the systemic temperature. Likewise, sweating and muscular relaxation are produced by local heating.

Daily treatments for thirty minutes in hot air chambers and blowers have been recommended particularly as an adjunct in the management of various forms of arthritis.

Chemical heating pads have been employed chiefly for chronic inflammation of the eye or nasal accessory sinuses. The larger chemical heating pad has been used as a substitute for the hot water bottle and has the advantage that it will remain hot for a longer period.

Ordinary electrical heating pads should not be used unless more suitable methods of heating are not available. The compress with accurate thermostatic control can be employed to maintain the warmth of wet dressings at proper level for infections, acute inflammation, cutaneous diseases and surgical conditions. Electrically heated sleeves, cuffs and pads, which have accurate control, can be employed for peripheral vascular disease, arthritis and traumatic lesions.

Applications of hot paraffin have been recommended chiefly for contractures, arthritis, fibrositis, post-traumatic stiff joints and lacerations.

The application of infra-red radiation has been advocated for numerous conditions. It tends to promote absorption of exudates because heat produces not a passive congestion but an active hyperemia with an increase in the volume of blood flowing through the region rather than engorgement and stagnation.

INFRA-RED RADIATION

Local treatment with infra-red radiation has been recommended^{2,3} for various types of neuritis, myositis, fibrositis and arthritis, for circulatory diseases, for certain types of paralysis and also for traumatic lesions such as sprains, contusions, dislocations and fractures. It always should be remembered that various conductive methods of applying heat often can be substituted for infra-red radiation or vice versa. The therapeutic effects are essentially the same. The choice of the superficial heating agent will be largely a matter of convenience.

Following trauma, heat should not be applied until the danger of capillary oozing with extravasation and ecchymosis has ceased. This usually

will require 24 to 48 hours. During this time tight dressings, immobilization and applications of cold are in order. As soon as this danger disappears, applications of heat for periods of 30 minutes or longer, once or twice a day, should be begun. After the applications of heat, massage sometimes can be administered. The heat and massage will tend to promote absorption and to prevent the formation of organized hematomas.

Traumatic synovitis, tenosynovitis, bursitis, spastic muscles and strained muscles often can be benefited by local applications of conductive or convective heat.

FEVER THERAPY

High physically induced fevers increase the pulse and circulatory rates. The velocity of the blood may be increased as much as 400 per cent. During induction of fever the cardiac filling time is shortened temporarily so that partial decompensation may occur. When fever therapy is accompanied by profuse sweating, the reduction in blood plasma may be so great that peripheral vascular collapse ensues. During fever therapy the visible capillaries of the nail beds are increased in size and number. Physically induced fever produces leukocytosis. An initial decrease in the number of leukocytes is followed immediately by a tidelike increase; the new cells are added in waves for several hours after the completion of the febrile session. The number of leukocytes then gradually diminishes and attains prefebrile levels in about 24 hours. Leukocytosis is greater several hours after the end of the fever session than at its close. At the peak there may be more than 40,000 leukocytes per cubic millimeter of blood. There is a relative increase in neutrophils and a relative decrease in lymphocytes following fever therapy. Excessive perspiration accompanying fever therapy may cause a marked decrease in the chlorides of the blood serum.

At the beginning of a session of fever the content of oxygen and the oxygen combining power of the venous blood are increased. Despite this increase of oxygen, the increased metabolic activity and the increased demand for oxygen in the tissues may result finally in anoxia of the tissues, particularly if the circulation begins to fail because of circulatory collapse. The danger of anoxia and likewise the danger of circulatory collapse owing to loss of bodily fluids from excessive perspiration always are present during prolonged sessions of artificial fever.

The growth of certain organisms is destroyed or attenuated at temperatures induced by artificial fever. The *Neisseria gonorrhea* generally is destroyed at a temperature of 106 to 107° F. (41.1 to 41.6° C.) in six to 34 hours, the mean number of hours being 16.1. The thermal death

time of the *Treponema pallidum* at 102.2° F. (39.0° C.) is five hours and at 106.8° F. (41.5° C.) is one hour. Nearly all strains of meningococci are attenuated greatly or destroyed at temperatures of 104 to 107.6° F. (0 to 42° C.) applied for five hours.

Fever therapy has been employed in treatment for acute and chronic atrophic arthritis. It seems of benefit in a certain percentage of the acute cases. Short sessions of 30 minutes, given every day or so, seem to assist in controlling exacerbations of chronic atrophic arthritis.

FEVER THERAPY AND SULFONAMIDES

Fever therapy now is considered by some authorities⁴ "the method of choice in chorea." Of 76 collected cases of Sydenham's chorea in which fever treatment was given, I found that in more than 72 per cent recovery occurred, and in an additional 21 per cent marked improvement was noted. Neymann's⁵ previous analysis of 69 cases indicated recovery in 77 per cent and improvement in 17 per cent.

I have been interested especially in the treatment of gonorrhea by means of fever therapy and more recently in treatment by means of a combination of fever therapy and the sulfonamide drugs for gonorrhea which is resistant to chemotherapy alone. In a series of 415 cases of proved gonorrhea in which adequate fever therapy was administered, Randall, Stuhler and I⁶ found that after an average of four fever sessions per patient, apparent, complete, clinical remissions were obtained in 94.1 per cent. Follow-up studies⁷ revealed that the disease recurred in not more than 3 to 5 per cent. Of 1,157 cases of acute and chronic gonorrhea collected from the literature treated by artificial fever I⁸ found that apparent cures were reported in 87.4 per cent and failures in 12.6 per cent.

Despite these excellent results with fever therapy alone, with the advent of the sulfonamide drugs it became apparent that they would have a curative effect in a high percentage of cases of gonorrhea. The administration of these drugs under proper control is certainly a much less rigorous procedure than is fever therapy. Therefore, it is recommended at present that chemotherapy be tried first before fever therapy is administered for gonorrhea.

I⁸ found that in a group of 43 patients suffering from resistant gonorrhea, all of whom had failed to respond to unfortified sulfonamide therapy, an average of 1.2 treatments which combined chemotherapy and artificial fever for ten hours effected apparent, complete, clinical remissions for 95.4 per cent. Thus it seems that the combined procedure is by far the most potent means of treating gonorrhea; this method always is to be considered, when unfortified chemotherapy fails.

Kendell, Rose and Simpson⁹ recently reported: "All of 31 unselected consecutive patients treated with sulfanilamide or promin for 18 hours before a single ten-hour fever session at a rectal temperature of 106.6° were cured." They studied 83 patients suffering from complications of gonorrhea, resistant or intolerant to chemotherapy. "Of these refractory patients, receiving fever therapy alone, only 12.5 per cent were cured following a single, eight-hour treatment at 106.6° F.; 62.5 per cent were cured following a single, ten-hour treatment at 106.6° F."

I have been using the ten-hour sessions of fever at approximately 106.8° F. (41.5° C.) routinely for resistant gonorrhea since January, 1937, because previously I had come to the conclusion that this was the most satisfactory way of treating resistant gonorrhea. The observations of Kendell and his associates⁹ confirm these views.

With the introduction of chemotherapy this procedure was combined with the ten-hour sessions of fever with even better results. Kendell and his associates observed that "a ten-day period of intensive sulfanilamide therapy prior to fever therapy is without value in sulfanilamide-resistant patients, provided none of the drug is present in the bodily fluids at the time of the fever treatment." This confirms my previous contention that there must be a high hemal concentration of the drug at the time of the fever treatment.

Kendell and his associates⁹ came to the conclusion with which I agree; namely, that: "The combination of a single ten-hour session of artificial fever therapy combined with the administration of adequate sulfanilamide or promin for 18 hours prior to the fever treatment appears to be the procedure of choice in the treatment of chemotherapy-resistant gonococcal infections."

GONORRHEAL ARTHRITIS

Fever therapy is the most effective means of treatment for gonorrheal arthritis. In the "Fifth rheumatism review"⁴ 15 reports were summarized in which results of fever therapy in approximately 380 cases of gonorrheal arthritis were presented. About 90 per cent of these 380 patients who had acute or chronic gonorrheal arthritis became free of symptoms. Fever therapy was spoken of variously as "specific," "the procedure of choice," "the best treatment now available" and "the treatment of choice to be used at the earliest available opportunity" in cases of gonorrheal arthritis.

Recent advances in chemotherapy undoubtedly have lessened the incidence of this manifestation of gonorrhea, but whenever chemotherapy fails to prevent its development, the combined fever chemotherapy regimen should be attempted at

once. It is unwise to delay the combined procedure too long, because the earlier the combined treatment is given, the less is the likelihood of permanent damage to the involved joint or joints.

Treatment of rheumatic fever by means of physical fever, especially when combined with chemotherapy, sometimes may be justifiable. In one series of cases¹⁰ there often was relief from pain and from swelling of joints as well as a final reduction in the number of leukocytes and in the sedimentation rate of the erythrocytes. In two-thirds of this small series of nine cases inactivity occurred in an average of 24 days after an average of five fever treatments.

For dementia paralytica physically induced fever frequently can be used to great advantage. There still is much controversy concerning the comparative value of physical fever and malarial fever in the treatment of paresis.

COMPARATIVE STUDY

Probably the most authoritative comparative study of the relative merits of the two procedures is that recently published by physicians from a group of cooperating clinics working in conjunction with the United States Public Health Service.¹¹ This group, whose chairman was O'Leary, carefully studied 1,100 patients who were treated with malaria and compared the results with those obtained for 320 patients treated with physically induced fever. The number of cases was large enough to be of some statistical significance, and the evidence indicated a slight superiority of physical fevers over malarial fevers.

The Committee studied patients "under treatment-observation" for three or more years. Of the patients who had mild paresis, 52.4 per cent of those treated with malarial fever and 59.3 per cent of those receiving physical fever obtained remissions. Of those who had intermediate paresis, 27.3 per cent of the patients who were treated with malaria and 28.1 per cent of those treated by physical fevers obtained remissions. For severe paresis an even more striking difference was found: only 0.8 per cent of the malaria treated group as compared with 12.0 per cent of those treated by physical fevers had remissions. Furthermore the "crude death rate" in the malaria treated group was 13.4 per cent as compared with only 8.1 per cent in the cases treated with physically induced fever.

In only one respect did the statistical evidence seem to reveal a superiority of the malarial therapy over the artificial fever therapy. "In patients treated with fever plus chemotherapy the annual rates of spinal fluids as well as blood reversal were consistently higher with malaria than with artificial fever." But even here there was an explanation, namely, that "this difference was assumed to be due to the

greater amount of chemotherapy, 17 per cent more, administered to the malaria patients."

More studies, of course, will be necessary, but as evidence piles up, it becomes increasingly evident that physically induced fever is equally as effective as malarial fever in the treatment of dementia paralytica. In addition, any procedure which will lessen the mortality by more than 5 per cent should be given careful consideration.

Fever therapy has proved to be of distinct value in treatment for undulant fever. Prickman, Bennett and I¹² reviewed the results obtained in 21 cases of brucellosis following treatment by means of physically induced fever and found that in approximately 80 per cent apparently complete clinical remissions occurred. Recently Moor¹³ reported on 15 cases of brucellosis treated with fever therapy. Nine patients, 60 per cent, obtained "unqualified recovery"; one was "much improved"; one was "improved", and the other four were only "temporarily improved." Zeiter¹⁴ at the Cleveland Clinic and several others⁸ also have reported successful treatment of brucellosis by means of fever therapy. Results have been most encouraging throughout; although the series still is small, there is increasing evidence of the value of fever therapy in this disease.

COLD

Local applications of cold have been employed therapeutically for conditions in which peripheral vasoconstriction is desirable. Contusions, sprains or other superficial traumatic lesions, in which there is danger of extravasation of blood and lymph into the perivascular tissues, often can be treated best during the first 48 hours by local applications of cold.

Cold often is applied locally for acute inflammation or congestion of superficial regions in order to produce vasoconstriction and to relieve pain, but cold cannot be used to allay inflammation within the abdomen, because now it is believed generally that local application of cold to the abdomen produces little, if any, change in the temperature of the underlying viscera. Intense cold can be used to destroy superficial cutaneous lesions. Usually a carbon dioxide pencil is employed for this purpose.

Occasionally when a local rise of temperature in an extremity is desirable, and a rise of systemic temperature is contraindicated, the general rise can be avoided by placing another extremity in moderately cold water while the affected extremity is being heated. This is known as the Lovén reflex.

Patients who are hypersensitive to cold can be desensitized by the simple expedient of inserting one hand in cold water at a temperature of 50° F. (10° C.) for one or two minutes twice a day for three or four weeks.

Systemic applications of cold have been tried

clinically for patients who have advanced malignant disease. In some instances, local applications of cold have been used in conjunction with the general cooling. Theorizing that increased temperature alone is required to bring into existence activation of the rapid embryologic cellular division in hen's eggs, that in plant life darkness and sustained abnormally high temperatures give rise to overgrowth and delayed maturity, and that intense sunlight and sustained low temperatures tend toward a slow and stunted maturity, Fay and Henny¹⁵ advocated trials of "refrigeration" in cases of carcinoma. They reported five cases in which "responses" were noted. They claimed "definite relief of local pain" and "apparent gross retardation in growth as well as diminution in the size of the carcinomatous lesions."

Later Smith and Fay,¹⁶ expanding the hypothesis that carcinomatous metastatic lesions are most common in bodily segments in which the temperature is highest, again advocated "refrigeration" therapy. They reported that local application of cold at approximately 36° F. (2.2° C.) to the pelvis of a patient who had a massive pelvic extension of a carcinoma of the cervix caused relief from pain in 48 hours, that within five days devascularization of the carcinomatous region with shrinkage had occurred and within three weeks evidence of repair with fibrous tissue was seen.

SYSTEMIC APPLICATIONS OF COLD

Prolonged intense cold applied to normal tissues could be expected to produce much the same effects, and in the light of the studies of Breedis and his associates,¹⁷ the temperatures employed could have little effect on the malignant cells. In normal tissues cold always will tend to produce devascularization, shrinkage and tissue damage which, of course, will be followed by repair with fibrous tissue.

Therefore, the hypotheses, which have been set forth by Fay and his associates^{15,16} as a basis for suggesting this form of therapy in cases of carcinoma, are debatable. The number of cases reported to date is so limited that the whole problem remains in the realm of pure conjecture. I would not give the question so much attention here, were it not for the fact that much publicity with regard to this work has swamped me with numerous inquiries concerning it.

Until definite proof is forthcoming, it seems evident that no clinician is justified in employing the procedure as a therapeutic measure in carcinoma, unless he desires to do so from an experimental angle in an institution properly equipped for such investigative work.

Systemic applications of cold have been suggested in treatment for lymphatic leukemia, but again the studies of Breedis and his associates¹⁷

suggest the futility of the method, and there is no clinical proof of its effectiveness. Troedsson¹⁸ stated that mild generalized "hypothermy" might be found useful in reducing a temporarily high fever, a high metabolic rate or rapid cardiac action "to give the heart a rest." At present none of these procedures have been investigated sufficiently to warrant its general use. Currently local applications of cold can be said to be of clinical value, but systemic applications of cold have not been developed to a point at which they can be employed in clinical practice.

ULTRAVIOLET RADIANT ENERGY

Exposure to ultraviolet rays produces¹⁹ photochemical effects with activation of certain substances in the skin and also possibly in the blood. Certain biologic effects also have been observed such as stimulation of metabolism and growth and increase of circulation and cellular activity.

Ultraviolet rays of wavelengths between 290 and 315 millimicrons have the specific property of preventing and curing rickets. Radiation from this same "vital" region possesses the ability to impart an antirachitic potency to fats, milk, ergosterol, 7-dehydrocholesterol (the sterol, found in human skin, which can be activated), oils and vegetables. If pregnant or nursing mothers or cows are exposed to these rays, their milk will develop an antirachitic potency.

Ultraviolet rays will cause a delayed or latent erythema in the skin of human beings. Repeated exposures to erythema doses lead to the production of diffuse pigmentation of the skin of the white man. Such pigmentation probably assists in the absorption of radiant energy which is transformed into heat.

There is evidence to indicate that ultraviolet irradiation of the human being causes improvement of the tone, color and elasticity of the skin and presumably also increases the secretory and protective powers of the skin. Exposures of large portions of the cutaneous surface to ultraviolet radiation produces activation of a constituent of the cutaneous cholesterol, 7-dehydrocholesterol, to form vitamin D, which in turn stimulates absorption of calcium and phosphorus from the intestinal tract and increases metabolic efficiency. Phytosterol of plants is activated similarly.

It has been reported that ultraviolet irradiation causes an increase of the active oxygen content of the lipids of the skin and consequently an increase in their bactericidal action. It is possible also that exposure to ultraviolet rays leads to the formation of hormones in the skin and accomplishes the activation of useful cutaneous reflexes.

On general exposure to ultraviolet irradiation the number of erythrocytes, leukocytes, blood

platelets and hemoglobin of the circulating blood may increase slightly, and the hydrogen ion concentration, coagulation time and eventually the volume of blood may decrease. In general, darkness produces a reverse effect with the exception that the blood volume seems to be diminished. Exposure to ultraviolet irradiation is believed to cause a possible increase in bodily resistance by increasing the bactericidal power of the blood which depends largely on the leukocytic reaction. Such radiation probably does not influence specific immunity.

GENERAL EFFECTS OF IRRADIATION

In moderate doses ultraviolet irradiation causes an increase in carbon dioxide tension and a relative alkalosis, while in heavy doses it produces a decreased carbon dioxide tension and acidosis. It has been demonstrated that ultraviolet irradiation causes a lessening of the toxicity of the serum of the patient who has pernicious anemia.

General ultraviolet irradiation produces a transient lowering of blood pressure. The factors, which probably are responsible for the reduction of blood pressure, are the production of cutaneous hyperemia, the decrease in the viscosity of the blood, the development of cutaneous depressor substances and the production of sympathetic hypotonia. Activation of the circulation has been attributed to the vasodilating effect of the ultraviolet erythema and its continuous tonic action on the nerve endings. It has been shown also that these rays cause increased permeability of cell membranes and capillaries.

In general ultraviolet rays of wave lengths longer than 290 millimicrons produce presumably stimulative effects on the human body, but if the rays are of wave lengths shorter than 290 millimicrons and in larger quantities, they will have a lethal effect on the cells of the human body. In smaller quantities the rays of shorter wave lengths may have a stimulative action on the cells. These effects are due, perhaps, to the production of a toxic photoproduct, which in large quantities is lethal and in small quantities acts as a stimulant to cell division.

Other general effects of ultraviolet irradiation have been noted; these include improvement of muscular tone, increase in protein and mineral metabolism, possible lowering of sympathetic tone, possible stimulation of intracellular oxidation and possible increase in the rate of bodily growth.

The application of ultraviolet rays does not act as a substitute for dietary deficiencies but produces an increase in the ability of the organism to utilize more effectively materials which are present but are not otherwise available. It is said that general exposure to ultraviolet rays

causes a decrease in the rate, but an increase in the depth, of respiration.

Finally ultraviolet irradiation has a definite bactericidal action. The line at 266 millimicrons is the most highly bactericidal; it is followed in order of effectiveness by the lines at 254, 280, 248 and 270 millimicrons. It has been demonstrated recently that the very short rays with wave lengths of less than 240 millimicrons have some germicidal action. Stimulation of bacterial growth has not been observed to result from exposure to ultraviolet rays.

Ultraviolet irradiation has been used extensively but indiscriminately in the practice of medicine. In a rather large number of conditions, however, evidence indicates that ultraviolet irradiation is, or gives promise of being, valuable. Among these conditions may be mentioned tuberculous peritonitis and enteritis, calcium deficiency diseases, secondary anemia, carbon monoxide poisoning, pulmonary tuberculosis (as an adjunct), tuberculosis of bones and joints, atrophic and hypertrophic arthritis (as an adjunct), tuberculosis of the genito-urinary tract, *ulcus serpens*, corneal ulcers, tuberculous lesions of the eye, ear, or nose, nasal ulceration, tuberculous laryngitis, rickets, tetany and spasmodophilia.

Among the diseases of the skin ultraviolet irradiation acts specifically only on *lupus vulgaris* and this only when treatment is strictly on the Finsen principle. Likewise ultraviolet irradiation may have a favorable action in other dermatoses, *scrofuloderma*, *erythema induratum*, *psoriasis*, *pustular folliculitis*, *indolent ulcer*, *furunculosis*, *acne vulgaris*, *angioma serpiginosum*, *parapsoriasis* and *pityriasis rosea*.

HYDROTHERAPY

Local application.—Warm or hot local baths are applied to the upper or to the lower extremity in treatment of arthritis, burns, cellulitis, circulatory diseases, contusions, sprains and infected wounds. Cold foot baths have been recommended in treatment of bromidrosis and for persistent coldness of the feet. Cold sitz baths have been recommended in treatment for such conditions as amenorrhea, prostatorrhea, atony of the bladder, atonic constipation and sexual impotence. The hot sitz baths have been suggested in treatment of dysmenorrhea, amenorrhea, prostatitis, tenesmus, ureteral colic, pelvic inflammation and gluteal fibrositis.

Contrast baths are especially useful in treatment of hypertrophic arthritis of the hands and feet and in the management of fractures, sprains and contusions. Such baths have been employed also for peripheral vascular disease.

In the auxiliary treatment of fractures of the extremities after removal of dressings whirlpool baths often are valuable. This type of bath im-

proves circulation, relaxes muscles and seems to have a sedative effect, thus preparing the extremity for subsequent massage and exercise. Indications for use of whirlpool baths are much the same as those for the contrast baths. Whirlpool baths, too, are used in the treatment of traumatic lesions, such as sprains, contusions, dislocations and of arthritis, peripheral vascular diseases and infected wounds of the extremities.

Warm or hot irrigations of the ear, nose or throat are employed to relieve inflammation and to remove exudate in the presence of such conditions as otitis media, furunculosis of the external auditory canal, chronic rhinitis, acute nasopharyngitis or peritonsillar abscess.

Irrigations of the stomach are used for relief of gastric retention in association with pyloric stenosis or carcinoma. They have been employed also to remove recently ingested poisons. Vaginal irrigations often are indicated in the management of leukorrhea, vaginitis, endocervicitis, endometritis and pelvic inflammatory disease.

There are very few indications for the use of colonic irrigations. It is possible that they may be useful occasionally for removal of masses of impacted feces from the lower part of the bowel. Such irrigations should not be employed routinely. Even occasional irrigations rarely are indicated.

Hot compresses are employed, at times, in treatment of muscular spasm or acute inflammatory processes. Cold compresses sometimes are applied over the precordium in treatment of tachycardia and cardiac neurosis.

General application.—The cold full bath has been recommended to improve functional activity, to stimulate general metabolism and to combat the debility associated with sedentary living. It was recommended by Brand²⁰ in treatment of typhoid fever. The tepid bath has been employed chiefly as a sedative or to combat excessive febrile reactions. Neutral baths are used occasionally to treat insomnia or to allay nervous excitability. Warm baths have been used for convulsions of infancy, to diminish the cerebral manifestations of certain acute febrile disorders and to treat such conditions as acute sciatica, dysmenorrhea, amenorrhea and insomnia. Hot baths often may be employed to advantage in controlling acute exacerbations of chronic atrophic arthritis as well as for fibrositis, myositis, neuritis, muscular spasm and abdominal cramps. Continuous baths are used particularly in the control of acute manias. They have been employed also in treatment of extensive burns, indolent ulcers, cutaneous diseases, suppurating wounds and large abscesses. Brine baths have been used especially for arthritis, fractures, dislocations, fibrositis, myositis and osteomyelitis.

Effervescent baths have been used for cardiac disease, especially for valvular or myocardial lesions. The oxygen bath has been recommended for hypertension and cardiac neurosis and as a mild sedative for advanced cardiac disease. Bland baths are used to relieve generalized pruritus and dermatitis.

Underwater exercises in tanks or pools are employed chiefly for poliomyelitis, spastic paralysis and certain orthopedic and neurologic conditions. Douches and showers are employed to improve peripheral circulation and to act as general stimulants. Neurasthenics and debilitated individuals are often benefited by the Scotch douche. Packs can be used to advantage in home treatment of arthritis, fibrositis or myositis, as well as for control of delirium, psychosis, hyperexcitability and insomnia.

ELECTROTHERAPY

The constant current.—**Iontophoresis.**—When iontophoresis is employed, the penetration of the ions never will be greater than a fraction of a millimeter; nevertheless certain valuable superficial effects can be obtained. The low velocity of the ions and the low potential at which they are introduced preclude deep penetration, but the ions can be absorbed into the circulation from the superficial layers of the skin and thus produce distinct local and even systemic effects.

For selected cases of chronic otorrhea Friel²¹ has recommended the employment of zinc iontophoresis. Lierle and Sage²² were not impressed so favorably with the procedure, and Hollender²³ concluded that, although the method may be useful in selected cases, the evidence presented to date is insufficient to place the procedure on a firm scientific basis. Recently zinc iontophoresis has been recommended in treatment of hay fever and rhinitis. The method may cause fibrosis of the nasal submucosa without damage to the superficial epithelium. Local application of phenol can produce a similar effect. At best the procedure is palliative and not curative. It has seemed to be more effective in non-allergic rhinitis than in seasonal hay fever. Its value and dangers as yet have not been determined fully.

Kovács²⁴ has recommended the employment of iontophoresis of "mecholy" (acetyl-beta-methylcholine chloride) in treatment of varicose ulcers. Zinc or copper iontophoresis has been employed in the past for indolent ulcers.

Kling²⁵ advocated the use of histamine iontophoresis in treatment of peripheral circulatory diseases. He was of the opinion that the procedure was more effective than were inunctions of histamine. Neither procedure is particularly effective in peripheral vascular diseases. I have tried histamine iontophoresis and could not see

that it had any advantage over other simpler methods of producing hyperemia.

Several authors^{25,26,27,28} have urged strongly the use of iontophoresis of histamine or of "mecholy" (acetyl-beta-methylcholine chloride) in treatment of atrophic, hypertrophic or traumatic arthritis. It was thought that the procedure caused local vasodilatation within the joint over which it was applied. It has been commented that this can be "little more than pure conjecture." I have found little to recommend the procedure and prefer simpler methods of producing vasodilatation in treatment for arthritis.

Copper iontophoresis has been employed for many years in treatment for endocervicitis, but no one seems to have compared the results carefully with those of other methods of treatment. Tovey²⁹, for example, recommended the procedure enthusiastically but presented no statistical or comparative studies to support his views.

Electrolysis.—Electrolysis achieved by sharp localization of caustic products at the tip of a needle is a suitable method for obtaining destruction of certain lesions of the skin and mucous membranes. The indications for electrolysis are comparatively few. In many instances the newer and more readily controlled high frequency currents are used for destruction of small superficial lesions. In several conditions, however, electrolysis still is considered the method of choice. Both MacKee³⁰ and Cipollaro³¹ recommended electrolysis for destruction of certain cutaneous lesions, such as adenoma sebaceum, dilated capillaries, benign cystic epitheliomas, hemangiomas, hydrocystomas, hypertrichosis, keratosis, pigmented hairy moles, spider nevi and syringocystadenomas. By far the most common and important indication for electrolysis is hypertrichosis. As Cipollaro stated: "It is the only method for permanent and safe removal of unwanted hairs".

The faradic current.—The faradic current is employed chiefly for performing the test for reaction of degeneration or for stimulation of muscles which have poor tone but possess a normal nerve supply. It is particularly useful in stimulating muscles which have lost tone and have become atrophied after prolonged disuse. The current also can be applied by means of a special brush electrode to cause strong, painful, muscular contractions as a means of inducing suggestion in cases of hysteria. Another valuable application of the faradic current is for the purpose of teaching a patient to contract one muscle independently. Muscle setting exercises often are valuable, but it may be difficult to train a patient to contract the correct muscle or muscles. Faradic stimulation of the muscles in question immediately will demonstrate to the

patient which muscles are to be contracted. Once he feels these muscles contract, he may be able to continue the contractions voluntarily. The electrical stimulation may save several hours of explanation and practice.

Faradic stimulation occasionally can be employed to produce rhythmic contractions of muscles which the patient cannot or will not contract of his own volition. Smart^{32,33} recommended its employment for many conditions, including strains, muscular atrophy, fibrositis, tenosynovitis, sprains, dislocations, fractures, arthritis and certain forms of paralysis.

Interrupted galvanic and sinusoidal currents.—

The uses of the interrupted galvanic current in medicine are few. It, of course, is employed routinely in conjunction with the faradic current in performance of the test for reaction of degeneration. It is used occasionally also for stimulation of extremely weak, paralyzed muscles which will not respond to the slow sinusoidal or to other waved galvanic currents.

The slow sinusoidal current is used for stimulation of unstriated muscles and sometimes can be used to produce contractions of paralyzed skeletal muscles. The rapid sinusoidal current is employed for stimulation of weak or atrophied muscles which have a normal nerve supply. For this purpose it is somewhat less unpleasant than the faradic current.

Not only have the interrupted galvanic and slow sinusoidal currents been employed in treatment for lesions of the lower motor neurons, but their use has been suggested³⁴ also for lesions of the upper motor neurons such as hemiplegia or myelitis. Electrical stimulation has been employed for prevention of atrophy of the quadriceps or deltoid muscle following injury to the knee or shoulder, to improve muscular tone in cardiovascular disorders and to initiate respiration in asphyxia of the newborn. The rapid sinusoidal current can be used interchangeably with the faradic current. Therefore, the indications listed under the faradic current can be consulted for further information concerning the possible uses of the rapid sinusoidal current.

Diathermy.—It has been demonstrated that diathermy will produce appreciable rises in temperature of more than 5° F. (2.75° C.) at a depth in comparatively avascular tissues. If the tissues are highly vascular, little increase in temperature, not more than 0.9° F. (0.5° C.) will be found. It frequently has been claimed by enthusiasts that short wave diathermy will produce certain physiologic effects other than those attributable to heating, but a large amount of experimental data now has been amassed which seems definitely to indicate that no specific physiologic effects other than those attributable to heating exist.

The numerous scientific investigations of the effect of diathermy on bacteria now permit the conclusion that neither *in vitro* nor *in vivo* are specific bactericidal effects other than those attributable to heat produced.

Whereas high frequency currents may be employed to great advantage for electrosurgery, fulguration, desiccation, coagulation and electric cutting, such applications are outside the realm of this discussion. Short wave diathermy currents are not suitable for fulguration, desiccation or coagulation but are excellent for purposes of cutting. A conventional diathermy, spark gap, apparatus should be employed for fulguration, desiccation or coagulation.

SHORT WAVE DIATHERMY

For medical purposes, that is, to heat the bodily tissues within physiologic limits, short wave diathermy is most effective. For such local heating of tissues three general types of electrodes are available: condenser plates or pads may be placed on each side of the part to be treated, cuffs may encircle an extremity above and below the region to be treated, or an induction coil may be wrapped around an extremity or formed in the shape of a flat pancake and placed over a certain region. The electrodes always should be spaced away from the bodily surface for a distance of about 2 inches (5 cm.) by means of felt pads or folded turkish towels. The apparatus then is adjusted to provide comfortable warmth in the region which is exposed to the current.

Despite frequent claims that short exposures of not more than ten minutes are sufficient to produce proper heating of the tissues, repeated studies in my own department³⁵ have indicated that it requires at least 30 minutes of exposure to short wave diathermy to obtain an optimal increase in temperature, and the usual time of exposure should be 30 to 45 minutes.

Short wave diathermy has been recommended especially in the treatment of suppurative processes, diseases of the bones and joints such as sprains, dislocations, arthritis, osteomyelitis and periostitis. There still is considerable argument concerning the usefulness of short wave diathermy in the management of fractures. Some investigators have expressed the belief that hyperemia caused by diathermy produces demineralization of bones, whereas others have felt that the increased circulation accelerates the formation of new bone.

Some have stated that the heat produced by diathermy is valuable in the treatment of fractures because of its favorable influence on the associated injuries to soft tissue. When so employed, it often should be administered in conjunction with massage and exercise. Diathermy also has been recommended in the treatment of

various types of endarteritis to promote circulation. However, in such cases there is always danger of producing burns and subsequent gangrene if too intense diathermy is applied directly to the involved extremity. Its employment has been recommended also in treatment for varicose ulcers.

In the field of cutaneous diseases continental workers have recommended particularly that diathermy be applied for furuncles, carbuncles, cellulitis and paronychia. To date the evidence is not conclusive that diathermy is more effective in such localized infections than are other forms of mild local heating. For certain gastrointestinal diseases such as diverticulitis, acute enteritis and spastic colitis diathermy has seemed to be of value as a palliative measure. A number of good investigators have stressed the value of local applications of intrapelvic diathermy in the treatment of chronic inflammation in the pelvic region as well as for nonspecific prostatitis, epididymitis and cystitis. Among the diseases of muscles, tendons and bursae, for which diathermy has been recommended, may be mentioned contusions, muscular strains, myositis, fibrositis, tenosynovitis and bursitis. Among the diseases of the nervous system, in which local heating by diathermy sometimes is useful, may be mentioned neuritis, particularly ischemic neuritis and such conditions as brachial neuritis, intercostal neuritis, sciatica and trifacial neuralgia. Short wave diathermy has been recommended to promote healing and to allay pain in otitis media and in the treatment of furunculosis of the external auditory canal.

Among diseases of the respiratory system for which short wave diathermy has been recommended may be mentioned sinusitis. Although, after adequate drainage has been established, local applications of heat may be of some slight value in the presence of inflammation of the accessory nasal sinuses, the procedure is merely palliative. There is no conclusive evidence that the procedure, as often has been claimed, ever is a specific in this condition. Diathermy has been recommended also as an adjunct in the management of various pulmonary lesions such as bronchitis, bronchial asthma and both bronchial and lobar pneumonia. In such conditions it must be considered simply as another means of applying heat, and it should be employed only as an auxiliary measure in conjunction with other forms of treatment.

MASSAGE

Pemberton³⁶ said aptly: "There is probably no other measure of equal known value in the entire armamentarium of medicine which is so inadequately understood and utilized by the profession as a whole."

The mistaken general impression still exists

that massage will remove deposits of fat from local regions of the body. Careful clinical investigations do not support this impression. In experimental studies of this problem Rosenthal³⁷ found that vigorous massage of the abdominal wall of animals produced no destructive effect on the adipose tissue. Following the heavy massage histologic sections of the adipose tissue exhibited no destruction of the fat, although the pressure of the massage had been sufficiently heavy to produce multiple hemorrhages.

MECHANICAL ASSISTANCE TO CIRCULATION

It is believed³⁶ that massage of muscles may improve the supply of blood and tend to remove the excess of lactic acid which develops after exercise. Massage can be employed as a mechanical means of stretching or breaking adhesions of intramuscular connective tissue. Although it often is thought that massage of muscles may increase their strength, this is not true. Muscular strength can be improved only by active exercise.

Centripetal stroking will improve circulation by aiding mechanically the return of venous blood and lymph toward the heart. It may produce also reflex contraction of the unstriated muscles of the walls of the vessels, thus assisting in the maintenance or restoration of the tone of these muscular fibers. The lightest stroking will empty the superficial veins and lymphatic vessels of an extremity, and heavier stroking will assist circulation in the deeper veins for the pressure in them rarely exceeds that of 5 or 10 mm. of mercury. In order to obtain mechanical assistance to circulation in the deeper vessels, the muscles must be well relaxed.

Massage often is valuable as an adjunct to elevation in the belief of edema of an extremity. Massage will assist gravity and also aid in restoring vasomotor tone.

Observations through a permanent window of the capillary circulation of the ear of a rabbit have revealed that following massage the rate of flow of blood increases and the walls of the capillaries change as is evidenced by sticking and emigration of leukocytes. It was concluded that the massage produced an increased interchange of substances between the blood stream and tissue cells with an altered and presumably improved metabolism of tissues.

For necessarily inactive patients and especially for patients with cardiac decompensation massage can be employed to compensate for the lack of contraction of the muscles of locomotion which normally contributes to the return of venous blood to the heart. I agree with Pemberton³⁸ that this form of massage "is not utilized clinically to the extent that it should be."

It is said that the influence of massage in increasing the amount of hemoglobin and the number of erythrocytes of the circulating blood "is beyond question." Massage does not increase the

lactic acid content of the blood, and the change in the hydrogen ion concentration is not comparable to that observed after exercise. Massage produces no change in the percentage of oxygen saturation, but it does cause a slight rise in the oxygen capacity of the blood.

If massage is applied skillfully, it can be employed to produce either a sedative or a stimulating effect on the central nervous system. Massage does not have any immediate effect or great influence on general metabolism. There is no immediate or delayed effect on the basal consumption of oxygen, the pulse rate or blood pressure of normal persons.

Arthritis.—Massage is of considerable value in preventing or delaying the muscular atrophy which often is associated with arthritis. Properly applied, it can be employed also in arthritis to improve local metabolism, increase circulation and lessen edema. In most cases of arthritis massage is preceded by applications of heat and followed by exercise. For atrophic arthritis massage alone is useless. Usually massage is applied to the muscles above and below the joint rather than directly to the arthritic joint. In the management of atrophic arthritis general massage often can be employed advantageously in conjunction with local massage. In hypertrophic arthritis especial care must be exercised to avoid heavy massage over, or too close to, the articular structures. Massage never should add to the trauma which already has been inflicted on such joints.

A leading specialist³⁸ on arthritis said that "few, if any, advanced cases of arthritis of either the atrophic or the hypertrophic type . . . can be expected to recover without recourse to the principles of physical therapy, intelligently ordered rest and massage in particular."

Fibrositis.—Many English writers have urged the employment of a special type of extremely firm massage in treatment for fibrositis of either the intramuscular or the periarticular type. All these authors agreed^{39,40,41,42,43} that in conjunction with fibrositis, fibrous nodules will be found which can be "massaged away."

Despite the fact that this condition commonly is unrecognized in the United States, it seems safe to conclude that the numerous English observers are correct in their conclusions. They contended that there is a form of muscular rheumatism, commonly called "fibrositis," characterized by the formation of fibrous nodules, bands or indurated regions, which are acutely tender at first and are associated with muscular spasm, and that, if the condition becomes chronic, the tenderness and muscular spasm tend to disappear.

Furthermore, English physicians have claimed repeatedly that such indurations can be broken

up and made to disappear by means of a special type of heavy stroking and kneading which should be applied directly to the indurations. The heavy massage, if continued for a sufficiently long period, tends to relieve pain, tenderness and muscular spasm. Apparently fibrositis frequently is overlooked, and the value of heavy massage in treatment often has been unrecognized. The procedure is palliative rather than curative, and recurrences are frequent, so that often it will be necessary to employ other methods of treatment in conjunction with renewed applications of firm massage.

Disease of the muscles.—In muscular spasm of the occupational type, such as "writer's cramp," a small localized region of tenderness often is present. Friction and deep stroking frequently relieve such tenderness. Continued deep stroking and kneading may prove to be a valuable adjunct in treatment.

Brisk general massage in conjunction with stroking and kneading of the affected regions has been employed in treatment for pseudohypertrophic muscular dystrophy. The massage usually is administered in conjunction with the passive exercise of joints to prevent contractures. These procedures, of course, are merely palliative.

For muscular contusions gentle stroking and later kneading may be valuable in relieving pain and stiffness and in promoting absorption of exudate. The massage should not be begun until 48 hours after injury.

Obesity.—It has been mentioned that massage is incapable of removing local deposits of adipose tissue, but general massage employed in conjunction with exercise and reduction of caloric intake may be of slight usefulness in the management of obesity. The massage sometimes can be employed as an adjunct in the early treatment of weak, obese individuals; later it can be replaced by carefully graduated mild exercises.

Circulatory diseases.—In cardiac decompensation, skillful massage may aid in restoring compensation by improving the peripheral circulation. Curiously enough, although massage has an obvious field of usefulness in improving circulation, and although it frequently is employed for this purpose on the European continent, it rarely is put to this use by American physicians. Every clinician determines the presence of edema by making pressure with a finger to displace fluids. It is obvious that massage could perform the same function on a larger scale and free an extremity of some of the edema. This fact, however, seems "to have escaped large recognition in this country".³⁸

Furthermore, in cases of circulatory failure when the patient must remain at absolute rest, massage can be employed as a substitute for the normal muscular contractions which assist cir-

ulation. Moderately deep stroking sometimes can be employed in conjunction with other therapeutic measures in treatment of peripheral vascular diseases.

Neurologic diseases.—Massage sometimes is employed to combat the fatigue, depression and irritability often associated with neurasthenia. Massage sometimes can be employed to advantage in the management of hysteria, but the technician must be familiar with psychotherapeutic methods and must employ massage only as it may be needed. For most neuroses massage should not be used indiscriminately. Coulter⁴⁴ has said that in most cases of traumatic neurosis "more symptoms have been rubbed in with massage than have been rubbed out."

Massage has been employed as a palliative measure in the management of such neurologic conditions as Parkinson's syndrome, syringomyelia and Sydenham's chorea. Light sedative massage occasionally is used in treatment of peripheral neuritis. In certain forms of paralysis, such as "crutch paralysis" and "Bell's palsy," massage is useful in maintaining tone and nutrition of the muscles until volitional control returns.

Orthopedic conditions.—Massage has been employed for sprains, strains, dislocations and fractures to promote circulation, relieve muscular spasm, overcome adhesions and restore function. It is valuable, also, in conjunction with exercise in the management of postural backache, sacroiliac or lumbosacral strain and coccygodynia. In the latter condition both external and internal massage are employed occasionally. In some instances coccygodynia seems to be due to spasm of the piriformis, coccygeus and levator ani muscles which sometimes can be relieved by internal massage through the rectum.

Following amputation massage often is useful in the preparation of the stump to receive the prosthesis.

Obstetric condition.—Massage frequently is valuable during and following the puerperium. Certain conditions which contribute to the discomforts of pregnancy can be benefited distinctly by correct application of massage. Those include nervous headaches, cramps of the legs, backache resulting from muscular strain and mild edema of the legs, resulting from simple venous obstruction. During labor massage of the uterus often is employed by the obstetrician. Following delivery massage of the fundus of uterus is practiced in order to hasten involution. On the third day after delivery massage of the legs can be started.

CORRECTIVE OR THERAPEUTIC EXERCISE

Best and Taylor⁴⁵ have estimated that the flow of blood through active muscles may be 20 or

more times as great as the flow during rest. During exercise a much greater portion of the capillary bed is supplied with blood. Both arterial and venous blood pressures are increased during exercise. The part which active exercises takes in assisting circulation is appreciated insufficiently by many physicians and the deleterious effects of prolonged rest often are overlooked.

Exercise tends to increase general metabolic activity. Even very slight exercises, such as writing, may increase the metabolic rate from 25 to 50 per cent above the basal level. Vigorous exercise may increase the metabolic rate to ten to twenty times the basal level.

It is impossible within the limits of this discussion to describe in detail the exercises which should be employed for various diseases.

Corrective exercises may be extremely useful in the management of postural deformities. The physician who is interested in this subject should refer to the report of the Subcommittee on Orthopedics and Body Mechanics of the White House Conference on Child Health and Protection⁴⁶ and to the textbooks by Goldthwait and his associates⁴⁷ and by Phelps and Kiphuth⁴⁸ which deal fully with this important problem. Elsewhere I⁸ have described the exercises employed at the Mayo Clinic for treatment of weakness and pronation of the feet as well as exercise for postural backache, lumbar lordosis and scoliosis.

One of the most interesting recent developments in the field of therapeutic exercise concerns its employment for the control of some of the symptoms of bronchial asthma. The Asthma Research Council of⁴⁹ King's College, London, has published an excellent small booklet, which is well illustrated and inexpensive, and which can be employed by the patient as an instruction manual while learning the exercises. Livingstone and Gillespie⁵⁰ and Bray⁵¹ have reported favorably concerning the efficacy of these exercises in relieving some of the distress of the asthmatic attacks and even in aborting the attacks. These exercises for asthma are directed especially toward teaching the patient to make a prolonged voluntary expiratory effort and to develop ability in abdominal breathing.

Exercises play an extremely important part in the management of the residual effects of poliomyelitis. The physician desiring detailed information concerning such exercises should consult the excellent small and inexpensive booklets on this subject by the Kendalls⁵² and by Greteman and Jackson⁵³ as well as the booklet by Stevenson.⁵⁴ Other valuable communications on this subject include those of Hansson,⁵⁵ Legg and Merrill⁵⁶ and Lovett.⁵⁷ Those interested in the Kenny treatment should consult the new booklet by Cole, Pole and Knapp.⁵⁸

Another group of patients who have been neglected much and who receive great benefit from

prolonged training in corrective exercise is the throng of children suffering from cerebral palsy. Because of the limited facilities which are available for proper training of these unfortunate youngsters, and it has been estimated that there are 108 treatable cases of cerebral palsy for each 200,000 population, it often becomes necessary for a parent to carry on the training of the child at home. I have found that Girard's⁵⁹ excellent monograph is a valuable guide for such parents. Other books to which these parents can refer include the ones by Fischel,⁶⁰ Rogers and Thomas⁶¹ and Abele and Greteman.⁶² In addition, every patient who has cerebral palsy can obtain inspiration by reading the semibiographical book by Earl R. Carlson,⁶³ himself a sufferer from cerebral palsy, who has devoted his career as a physician to the treatment of "the severely birth-injured."

Coulter⁶⁴ has described a set of modified Frenkel co-ordination exercises which can be employed to advantage in the treatment of combined sclerosis and tabes dorsalis. He has given also an excellent description of the proper methods of employing exercise in cardiac diseases and in the management of hemiplegia. Sever⁶⁵ has presented detailed information concerning the employment of corrective exercises for obstetrical paralysis. Elsewhere I⁸ have given a description of exercises of individual joints following trauma.

Occupational therapy is a form of therapeutic exercise and anyone interested in this extensive field of therapy should refer to the writings of Davis and Dunton,⁶⁶ Dunton⁶⁷ Mock⁶⁸ and Mock and Abbey.⁶⁹

SUMMARY

To summarize concerning the uses of therapeutic exercise, it may be said that general postural exercises are required in the management of such conditions as scoliosis, kyphosis and lordosis. Postural exercises may benefit or may prevent orthostatic albuminuria, postural backache, chronic postural strain, exhaustion states or functional decompensation of the muscles of the back. Foot postural exercises may be useful in treatment of pronation of the feet or in treatment of breaking down of the longitudinal or transverse arches of the feet. Exercises may be valuable in overcoming muscular, tendinous or fascial contractures.

Among the medical conditions, which often can be benefited by exercises of certain types, can be mentioned asthma, arthritis, cardiac disease, cerebral palsy, combined sclerosis, hemiplegia, poliomyelitis and tabes dorsalis. Among the surgical lesions, which can be helped by various types of exercises, can be mentioned contusions, sprains, strains, dislocations, fractures, amputations, lesions of the peripheral nerves and ob-

stetric paralysis. Exercises of the legs may prevent postoperative thrombosis, and abdominal exercises can be employed to strengthen the muscles following pregnancy or prior to herniorrhaphy.

COMMENT AND CONCLUSIONS

Physical therapy is an extremely important and much neglected branch of medicine. During war time, its importance is greatly enhanced. Many physical procedures are employed readily in the general practice of medicine. I desire to make a strenuous plea for better understanding and more extensive employment of physical measures by physicians at large. Such a step will be of untold benefit to humanity.

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Essentials and Organization of Industrial Health Services

CARL M. PETERSON, M.D.

THE Council on Industrial Health of the American Medical Association has throughout its existence attempted to define as concisely as possible what the medical profession ought to accept as its definite obligation in the field of industrial practice. At the present time we believe the essentials of an industrial health service to be as follows:

1. A competent physician who takes genuine interest in applying the principles of preventive medicine and hygiene to employed groups and who is willing to devote regular hours to such service in the working environment.

2. Industrial nurses with proper preparation, acting under the physician's immediate supervision or under standing orders developed by him or by the committee on industrial health of the county medical society.

3. Industrial hygiene service directed at improvement of working environment and control of all unhealthful exposures, to be provided by physicians and others with guidance and assistance from the specialized personnel in state and local bureaus of industrial hygiene.

4. A health program which should include:

- a. Prompt and dependable first aid, emergency and subsequent medical and surgical care for all industrially induced disability.
- b. Health conservation of employees through physical supervision and health education.
- c. Close correlation with family physicians and other community health agencies for early and proper management of nonoccupational sickness and injury.
- d. Good records of all causes of absence from work as a guide to the establishment of preventive measures.

NEED FOR A PROGRAM

Large industry, to a very considerable degree, has found comprehensive industrial health service a very distinct advantage. Small industry, on the other hand, has been unwilling or unable to adopt all of the elements contemplated in the type of health service included in these essentials. Nevertheless, there is growing conviction that industry, large or small, can avail itself of the benefits of modern industrial health methods through improved organization of existing medical and public health facilities. It is now proposed that the organized medical profession understand its opportunity in this direction and, based on that understanding, develop a program which will express its leadership and initiative.

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The problem is far from a simple one but certain methods of approach have already presented themselves. These are:

1. The creation of public interest.
2. The provision of competent professional and allied personnel to meet increased demands.
3. Better local organization.

CREATION OF PUBLIC INTEREST

We must determine to what extent employers are interested or willing to support one or more of the elements in the list of services already described. Fortunately, we have the example of successful administration of medical supervision in many plants. In the past, to be sure, they have been mainly large corporations but we do have reasonable assurance that, given a kind and amount of service they can support, smaller plants will avail themselves of the benefits of preventive industrial medical service. They may do so singly or in groups and with limited or full services. The matter of creating interest and support, however, should not be an obligation of medicine alone, but one which can be jointly undertaken by employers and doctors in many industrial communities.

Next, we must convince the employee that he stands to gain considerably wherever industrial medical service is competently and fairly administered, and that his own and his employer's interest should be almost identical in this respect. We must also persuade the worker to recognize the necessity for guarding his own physical welfare away from work as well as on the job. The finest working conditions avail little if co-existing bad housing, poor nutrition and improper use of leisure time negate an employer's efforts to make his working force healthier and happier. Here again the medical profession feels that although medicine can accept considerable responsibility for suitable programs of health education among the working population, results of lasting value will occur only if employes themselves, through their own efforts, make a real contribution.

Read before a General Session, Ohio State Medical Association, at the Ninety-Seventh Annual Meeting, Columbus, Ohio, March 31, 1943.

COMPETENT PROFESSIONAL PERSONNEL

The third and most direct responsibility rests squarely on the medical profession. Here again we have important steps to take:

1. We must do what we can to keep physicians, nurses and hygienists already placed in industrial service where they are in work which they are trained and prepared to perform (respecting, of course, the preeminent requirements of the military forces.)

2. We must, through intensive postgraduate education, prepare our membership as a whole to be able to respond to increased demands for industrial health service.

3. We must make the best and most efficient use possible of local medical and health facilities through good local organization.

BETTER LOCAL ORGANIZATIONS

The Council on Industrial Health, which I represent, is actively engaged in organizing committees on industrial health in state medical societies and in all county medical societies located in areas where such a step is justified. We have recommended that the county medical society committee should contain representation from industrial practice, private practice, and the local health unit since these are the essential medical groups needed to supply the service. Obviously, the committee should understand the components of adequate service and be prepared to adjust them to existing medical and public health facilities and methods of community practice.

The committees, with local variations, will probably proceed as follows:

1. The committee in the county society should request instruction from the committee on industrial health in the state medical association and from the state division of industrial hygiene. Preferably, a preliminary conference should be held with representatives of these two agencies to establish:

- a. The lines of relationship and responsibility already existing between government, industry, labor and the medical profession.
- b. The principal industrial health problems of the community as a basis for remedial action.
- c. The proper organization and employment of local medical and health facilities.
- d. Supplementary services which can be called on from sources outside the community itself.

The needs of small industry should be particularly stressed.

2. The names of all physicians now serving or willing to serve in industry should be determined. These physicians should be invited to attend a meeting at which results of the preliminary conference just described can be reported and general details of the program presented for discussion and adoption.

3. Conferences should be held with other essential professional groups, particularly industrial or public health nurses and industrial hygienists, in order that dependable arrangements for services provided by these groups may be made.

4. The county medical society committee should then request a conference with the executives or a representative committee of the local manufacturers' association, chamber of commerce or both to describe the program and to determine how the medical profession and the local health department can accelerate and improve production through appropriate health activity. Specifically, the following items should be discussed:

- a. The essentials of industrial health service as outlined.
- b. The health and economic benefits of such a service.
- c. Methods of supplying this service.
- d. Probable cost.

5. Active cooperation should be secured from local labor organizations both in respect to the conduct of medical services in the plant and to establish a program of health education in the community. Health education should emphasize particularly non-occupational factors which are of importance to the health of the workers.

Labor organizations should be requested to assume a considerable share of responsibility for the health educational aspects of the program.

6. The next procedure should be an open meeting conducted by the county medical society and to which the community at large, can be invited. This meeting will provide means for promoting the program widely throughout local industry.

7. Following preliminary organization, the activities of the county medical society's committee on industrial health will fall mainly under four major headings:

- a. Investigation of local causes of lost time in industry as a basis for necessary remedial service.
- b. Coordination of community industrial health facilities.
- c. Frequent education of the public about the benefits of an industrial health program.
- d. Continuous education of the medical profession as a means for elevating standards of industrial health service.

In all other ways the committee should exercise that degree of initiative and leadership which will properly represent medicine's responsibilities and opportunities in this important field.

COUNTY SOCIETY THE KEYSTONE

In these and other ways, we hope that industrial health problems can be solved through sound community organization. The program is an urgent one if it is regarded as desirable to develop it on a voluntary basis. On that basis the service itself will persist and grow on its own merit—based on individual plant needs and the ability and initiative of individual physicians to meet them.

Women In Industry—Present and Future Problems

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MANY medical problems in industry common to both men and women have received much attention. Appropriate studies and investigations have resulted in great progress. However, authoritative data is essentially non-existent about those problems peculiar to women employees. Thus, the following considerations are advanced on availability of women for employment in relation to their physiologic, biologic and pathologic states.

By election, the words woman or women refer, unless otherwise designated, to the female population of fifteen years of age and over. Because of physical and physiological changes the women are subdivided into two groups; namely, 15-44 years, and 45 years and over. Admittedly, this arbitrary division may not be always biologically exact, but for practicality, it serves the purpose.

CONDITIONS FOR FEMALE EMPLOYMENT

Unquestionably, some women accept employment because of economic compulsion. Yet others elect employment for other reasons. When economic conditions necessitate there can be less argument against employment of women, particularly if these reservations are followed: (A) that the employee is physically able to work, (B) that the work is suitable for the employee; (C) that the work is in suitable environment, (D) that it is carried out with adequate safeguards, (E) that it is conducted on the basis of generally acceptable standards, and (F) that it is done with consideration for associated workers and in fairness for the employer.

Various arguments have been advanced, both for and against the use of women in industry. Even in our present crisis, there still remain some who oppose such practices. Ideally, women with smaller children would be fully occupied with the care of their children and their homes. A pregnant patient, although in need of activity, should avoid excitement, and the strenuous schedules which may arise unavoidably in some occupations. The pregnancy as such may not interfere with certain types of work, but the employment should be limited to the first 32 weeks of pregnancy, even under the most favorable circumstances. The type of work and working environment and the employee's physical and mental conditions should serve as guides in normal peacetime for duration and type of em-

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ployment. Large numbers of mothers and also gravid women have been employed successfully from the production point of view, but the exact degree of safety remains yet to be ascertained.

One has only to accept the facts that nationally we must have our fighting forces as well as materials, equipment, foods, and clothing for both the armed forces and the home front. When men are taken from industry, their places must be filled by those from less essential or unessential industries, older men, youths and women. Because there are not enough of others, women must enter industries in increasing numbers.

The need for more employees to replace men who have been taken into the armed forces and to fill vacancies created by the expansion of industry has reached a record height. From 1940 to the end of 1942, there was an increase of 35 per cent in the employment of women.

Within the last year, the proportion of women workers from among all employed workers has risen from 25 per cent in February of 1942 to 30 per cent in February of 1943. Between January and February of 1943, the female employment increased by 300,000 while the male employment decreased 400,000. This makes a resulting drop of 100,000 in the total employment. Meanwhile, for January and February of 1943, the level of unemployment remained unchanged—whether this is the irreducible minimum cannot be prognosticated yet.

Generally the type of work for women has been restricted. Within the last year or so it has been found that women can replace men in a great majority of industrial occupations, and also that they may be superior to men where manual dexterity or tedious routines are involved. In the urgency of the present day, women have entered into work heretofore assigned only to heavy, sturdy men. In the state

Read before a General Session, Ohio State Medical Association at the Ninety-Seventh Annual Meeting, Columbus, March 31, 1943.

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of emergency, it may be mandatory to deviate from the usual policies even though it is not desirable as there may be no acceptable alternative. Furthermore, inexperienced employees must be trained for special types of work.

PRELIMINARY REPORT

A preliminary report of the Committee on the Health of Women in Industry of the Section on Obstetrics and Gynecology of the American Medical Association² was published recently in the *Journal of the A.M.A.* Careful reading and consideration of this report will reveal the viewpoints of the Committee and the advice relative to problems peculiar to women. There was substantial agreement upon these recommendations.

Fair, unbiased, and impartial recommendations must be established and maintained for the benefit of both the employee and employer. For instance, the Committee recommended a complete physical examination, including an obstetric and gynecological evaluation in the pre-employment or pre-placement examination. This examination was intended for the benefit of the employee—as a safeguard to her health and to assist in proper placement in industry. Without able and capable employees, industry cannot produce efficiently. The medical record should be confidential and access to it obtained only when the employee gives her consent. In any instance, where the prospective or even a regular employee has an illness or condition which is dangerous to the fellow worker, then it becomes a matter of public health measure to exclude the offender.

From a medical viewpoint and except in states of great emergency it is assumed that an individual should be free to choose her type of work, provided she is sufficiently suited, adept and otherwise qualified for it or can qualify, and without menacing other workers. Likewise, it is assumed that the employer should be free to choose and place his employees, provided it is done justly and fairly. These freedoms are expressions of democracy.

Many industrial physicians have done much for both the employee and the employer. At the present time, he alone is in an enviable position to contribute enormously (1) toward the safety and health of the employee and (2) at the same time, toward more efficient and better production for the employer.

AVAILABILITY OF WOMEN

Table I depicts the female population as of April 1, 1940. The present calculation exceeds these numbers by slightly over 2 per cent. In other words, the total number of women over the age of fifteen is approximately fifty million, with slightly over thirty-two million in the ages of 15-44.

Seventeen and one-half million are in the 45 years of age and over. Urban population is restricted generally to those communities of 2500 population and greater. With this definition, the totals of the rural groups equal approximately twenty million women who are in the

TABLE I
Woman Population—Source: U. S. Census 1940

Age Groups	Expressed in Approximate Millions			Total
	Farm	Rural Non-Farm	Urban	
15 years and over....	9.6	9.6	30.2	49.4
15 to 44 years inc....	6.3	6.2	19.5	32.0
45 years and over....	3.3	3.4	10.7	17.3

Courtesy Miss Mary Anderson, Director, Women's Bureau, and Dr. Edwin F. Daily, Director, Health Services, Children's Bureau, U.S. Department of Labor.

15 to 44 age bracket, while about eleven million are in the older group. Since industrial and war activities are in urban communities, the availability of women for employment must be procured generally from the urban communities.

Table II lists as of April, 1942, the number of mothers with children in relation to the labor forces. Labor forces include those employed and seeking employment. At the present time, it is

TABLE II
Estimated Number of Women With Children—April, 1942
Expressed in Approximate Millions

	Labor Force	Non-Labor Force	Total
Under 5 years	0.5	6.2	6.7
5 to 9 years	0.6	3.5	4.2
10 to 16 years	0.9	3.7	4.6
Under 16 years	2.0	13.4	15.5

Source: Women's Bureau, U.S. Department of Labor.

calculated that there must be close to seven million women who have children under the ages of five years and probably slightly under eleven million women with children nine years of age and under. On the basis of birth reports for January and February, 1943, over three million women will have children this calendar year.

Table III compares December, 1942, and 1943 for female employment in all industries and war industries. Because there are only about thirty million women in urban areas, the pressure for women in employment will be felt more severely. It is problematic what the exact employment census will be in December, 1943, but it seems that one may safely calculate that 36 per cent of all women will be employed by that time and that from six and one-half to eight million women alone will be in war industries. Between 13 and 16 per cent of all women or from 36 to 44 per cent of all employed women will be in war industries.

The situation in Ohio is not greatly different than the country as a whole. This is illustrated

in Table IV, using the 1940 census. (The present calculation may be made by increasing 2 to 2½ per cent.) The divisions of rural farm, rural non-farm and urban brackets for the 15 years of age and over, 15 to 44, and 45 years and over are expressed in thousands.

TABLE III
Estimated Number of Women Employed
December, 1942

	Millions	Population	Percent Employed
All industries.....	15**	30±	—
War industries.....	3*	7±	23
December, 1943			
All industries.....	18	36	—
War industries.....	6.5-8xx	13-16	36-44

*Bulletin No. 193, Women's Bureau, U.S. Department of Labor, July, 1942.
**Women's Bureau Release, "Women in the Labor Force", July 18, 1942.
xxAuthor's estimate.

The relation of the female population to the labor force is indicated in Table V. It reveals that Ohio had 23 per cent of all women of 14 years and over or 638,000 out of 2,669,000 women in the labor force group. The greatest number of women employed were in the urban communities, reaching a level of almost 28 per cent, or over 526,000 of a total of 1,868,000. Surely, the percentage figures of employment for today would be even higher.

At the end of 1942, the U.S. Department of Commerce¹ calculated that there were slightly over thirty-two million women not in the labor force for 14 years of age and greater. Over three-fourths (Table VI) of these were engaged

TABLE IV
Female Population in Ohio—U.S. Census 1940
Expressed in Approximate Thousands

Age Group	Rural		Urban	Total
	Farm	Non-Farm		
15 years and over....	363	438	1868	2669
15 to 44 years inc....	206	275	1179	1660
45 years and over....	156	163	688	1008

For April, 1943—3 yr. increase probably between 2 and 2.5% over 1940.

in their home activities, while slightly under 12 per cent are in school and slightly under 7 per cent are too old or unable to work and about 1.3 per cent are otherwise classified. In other words, the additional source for women employees would seem to come from those now in home activities and in school.

Although Table VII is the calculation for May, 1942, for the entire United States, it reveals that 25 per cent of employed women fall into the category of domestic and personnel help. Manufacturing followed shortly with 22 per cent, agriculture with only 11 per cent. An increase in the employment for manufacturing and industrial activities could be obtained from do-

mestic and personnel help groups, as well as those not employed at the present time.

The employment of mothers with dependent children raises a question of care for these dependent children during the mother's absence.

MEDICAL PROBLEMS PECULIAR TO WOMEN

It is generally agreed upon that women do more work outside of industry than do men in the same environment. Wives, and especially

TABLE V
Women in Labor Force and Non-Labor Force for Ohio
U.S. Census 1940
Thousands of Persons 14 Years and Older

	Total	Labor Force	Non-Labor Force
Total	2728	638 (23+%)	2089
Urban	1905	526 (28—%)	1379
Rural Non-Farm	449	74 (16+%)	374
Rural Farm.....	373	37 (10—%)	335

mothers, may work as many hours at home as in the plant. Absenteeism has been increased in some industries presumably on the basis that the women took time out to complete their home duties. For instance, it is difficult for some women to have commercial laundries to do their

TABLE VI
Estimate of Women Not in Labor Force
December, 1942
Millions of Persons 14 Years and Older

Total	Engaged in Own Home	In School	Unable to Work Or Too Old	Other
36.2	29	4.3	2.4	0.5

U.S. Department of Commerce L.F.B. March 1, 1943.

laundrying. If this cannot be achieved, then the housewife must do her own laundry. Such illustrations point out why the working wife or mother may spend as many hours in her own home activities as she does in her job in in-

TABLE VII
Estimated 13,500,000 Women Employed
May, 1942*

	Millions	% of Total
Domestic and personnel.....	3.4	25
Manufacturing	3.0	22
Professional (nurses, teachers, etc.).....	1.9	14
Retail and wholesale trade.....	1.9	14
Agricultural	1.5	11
Government service.....	0.8	6
Amusement and recreation.....	0.7	5
Transportation and public utilities.....	0.4	3

*U.S. Children's Bureau.

dustry. Thus, one cause of absenteeism may be that the woman takes time for home activities.

The obstetric and gynecologic problems more often encountered in women in industry are dysmenorrhea, pregnancy, and the menopausal syndrome. Obviously, pregnancy and meno-

pause are not industrial disease, and according to present data it seems most likely that dysmenorrhea is also a non-industrial problem. However, these and other complications need attention and by medical care the employee may become a more useful employee and a healthier individual.

The increasing birth rate will increase the turnover in industry. The Committee on the Health of Women in Industry of the Section on Obstetrics and Gynecology of the American Medical Association² recommended that normal pregnant women need reasonable activity but when employment is necessary, other stresses and strains should be reduced or eliminated. Continuation of employment is common practice in the first half of pregnancy and perhaps longer, depending upon the woman's tolerance to the type of work. It may be taken for granted that other factors will enter into consideration. Obviously, the pregnant employee should not be overburdened by home duties. Each pregnant employee should have individual consideration by her obstetrician and by the plant physician as to hours and duration of employment, as well as to type of employment.

As pregnancy advances beyond the 20th to 24th week of gestation, the woman becomes progressively more awkward and thus she should avoid walking or climbing where delicate balance is involved. Pregnant women should have regular shifts of employment in order that their life may be regulated for the greatest amount of rest and regular sleep. Many have felt that mothers and gravid women should not be employed but economic conditions sometimes necessitate a deviation from the ideal program. In the stress of national emergency, production must be maintained for the safety of the nation. Accordingly, the Committee² further recommended that the pregnant employee should not be employed after the 32d week of pregnancy. It is believed that the discontinuation of employment in the last trimester or even earlier would be beneficial. They urge that each employee inform the proper authority in the industry about her pregnant state within the first trimester and that she obtain a statement from her physician to the effect (a) that her employment was not contraindicated, and (b) that she may not work longer than a given period of pregnancy. Women should not ordinarily return to work until the baby is six weeks old and then only if satisfactory arrangements can be made for care of the baby and the mother's condition is satisfactory for her return. Every pregnant person, whether employed or not, should have adequate prenatal care. This is a personal problem and should be given by the patient's personal physician. When the patient sees her obstetrician early in her pregnancy, some compli-

cations may be avoided or appropriate therapy instituted for such. Unintentional abortion has been a great worry to some employers. Present evidences^{3,4} indicate that abnormal or defective ova are the single largest cause of unintentional abortion. So far, there is no available data which would indicate that the ordinary employment is detrimental to the early pregnant state in normal women. The serious complications of pregnancy as toxemia of pregnancy, placenta previa, or abruptio placentae need immediate treatment and are wholly incompatible with any employment. It must not be forgotten that any pregnant patient may develop any condition which she might develop had she not been pregnant. This includes all of the disease of the hemopoietic system, the endocrinal system, venereal disease, conditions of the heart and kidney and practically all other diseases.

The menopausal syndrome is not caused by employment and its treatment is not primarily an industrial problem. Treatment by estrogenic therapy or mild sedatives may relieve the symptoms and keep the individual regularly employed. This is a problem for the personal physician.

Menstrual disturbances particularly dysmenorrhea, amenorrhea, and menorrhagia are likely to be found wherever a large number of women are together. Many factors may produce these symptoms. Dysmenorrhea may be caused by endometriosis, pelvic neoplasms, cervical stenosis, maladjustment, hormonal imbalance and a number of other conditions. Many of the individuals who develop some pain at the catamenia may be kept at their employment for the greater part of the day if they are allowed to have one-half hour to an hour's rest and given warm fluids. The more severe dysmenorrheas and those who do not respond to the usual management, certainly should have care by the employee's personal physician. Occasionally, individuals will have amenorrhea or menorrhagia occur after a change in climate, environment or even when they are placed in positions of responsibility or work under tension. It would seem that it is not the employment per se but an individual matter of adjustment to the circumstances. Of course, all these disturbances should be investigated by the employee's personal physician.

PRE-EMPLOYMENT EXAMINATION OF WOMEN

The Committee on the Health of Women in Industry of the Section on Obstetrics and Gynecology of the American Medical Association, recommended that there be special inquiry and investigation about the reproduction organs of the prospective employee. This examination should be given with the idea of better placement of the employee and to elicit any possible conditions which might be quite important from the individual's viewpoint. The examining physician

should acquaint the examinee with the results of all findings and should refer the individual to the physician of the worker's choice for correction and treatment of these findings. Women with relaxation of the vaginal walls and beginning prolapse might better be placed in type of work that would not require lifting or prolonged standing or work without undue physical strain. Certainly, the pregnant or lactating woman and for that matter, any woman who has had a sterility problem or repeated abortions should be protected, particularly against heavy metals, toxic substances, as volatile materials, solvents, explosives, and such agents. Any substance that may produce kidney or liver damage would be particularly serious to the pregnant woman as well as to those contemplating pregnancy.

In the State of Ohio at the present time, it is calculated that there are in the neighborhood of approximately 6100 active physicians. On this basis, there are slightly over 100 employed women for each active physician in this state. Ohio has a number of industries throughout the state and thus it is self-evident that physicians who heretofore may have had little or no connection with patients who are working must acquaint themselves with the patient's problems and the employment problems, if he is to do his part. At no time is it so necessary for the industrial physician and the private physician to cooperate to the fullest degree for the protection of the employee, and at the same time, giving support to the employer in order that he may continue to produce for the successful execution of this war.

SUMMARY

The present problem is the maintenance of the health of women now employed. This can be favored by pre-employment examination and proper placement in industry. This program can be enhanced by cooperation of the industrial physician and the employee's physician. Most industrial physicians are not especially able obstetricians and gynecologists and also most private physicians are not amply informed about industrial problems. Obviously, all obstetric and gynecological conditions should be under the care of the employee's physician and close cooperation by the private physician and the industrial physician will give the most benefit to the employee and the employer.

There is no conclusive information or data available at this time to establish fixed policies. The future can be benefited by thorough and complete studies of women in various employments. Such studies should include effects and results upon menstrual difficulties, and menopausal syndrome and all complications related to the genital system of the employee in relation to various types of work, to the hours of work,

and to other factors. The factors of nutrition, and especially vitamin intake, need investigation at the same time.

The future will be just as uncertain as the present, so far as these problems are concerned unless efforts are made to learn reliably about all those views. Until more is known, industrial and private physicians must be guided by those who have interested themselves in these problems.

Employers and employees should welcome the opportunity to cooperate in the establishment of facts. A fairminded individual, with enough facilities and qualified advisers; an unbiased committee; or an impartial commission could, with cooperation and funds, collect and present these facts, and make practical, safe, and proper recommendations.

The medical profession can and must meet this challenge of solving these new medical problems.

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Infectious Eczematoid Dermatitis

This condition, often secondary to some infected wound on the lower extremities, is one that occurs quite frequently in those employed in the building industries. I find that, almost uniformly, the application of any salve (including the current favorite, sulfathiazole) tends to make the condition worse. In fact, I believe that it seals up the exudate, always present, and "forces" the absorption of bacteria and their products into the blood stream, with the production of new lesions at sites far removed from the injury. Patients often remark, "I put a salve on the sore, and it spread all over". Only the relatively innocuous nature of the invading organisms saves the patient from a speedy demise.

Application of wet dressings of potassium permanganate (1-3,000) and the use of the same medicament in a bath (1-30,000) is a very efficient measure. It seems to me that the skin returns to normal more quickly after the use of potassium permanganate than after using other remedies which may be more bactericidal (aluminum subacetate, mercuric chloride). I agree with the current dermatologic opinion that there is little to be gained by administration of the sulfonamide drugs in nonfebrile conditions; that more harm than good may come of it.—Thomas S. Saunders, M.D., Portland, Ore.; Northwest Med., Vol. 42, No. 5, May, 1943.

Myasthenia Gravis With Profound Muscle Atrophy

Case Record Presenting Clinical Problems

CHARLES D. ARING, M.D. and I. MARK SCHEINKER, M.D.

Case 137860. A white woman, the mother of four children, first noted unusual fatigue in September, 1938, when she was 34 years old. In November, 1938, ptosis occurred followed in a day by diplopia; both cleared gradually over three weeks. In February, 1939, she experienced difficulty in speaking (nasal tone and poor enunciation), and severe generalized fatigue most obvious in the upper extremities which cleared in about a week. Up to the time of her admission to the neurological service on February 6, 1940, she had episodic bouts of any one, or combinations of these symptoms. The symptoms were considerably worse in the evenings and had become more severe and prolonged with the passage of time. In the week before entry to the hospital she had had difficulty in swallowing, and could not take solid food.

Abnormalities disclosed in the admission examination were bilateral marked ptosis; the left eye could be moved to the right moderately far, downward well, to the left or upward not at all; the right eye could be moved to the left or downward, but not to the right or upward; weakness of masseter muscles; the upper lip could be elevated but could not be drawn laterally, the eyes could not be completely closed and there was considerable weakness of movement of the forehead; the palate moved hardly at all; speech could not be understood; the tongue could be barely moved and the tip protruded just beyond the anterior incisor teeth; fluids were regurgitated through the nose; repetitive movements of the hands caused some weakness eventually, and there were hyperactive tendon reflexes, and bilateral Hoffmann responses.

While she got some relief from the sublingual use of prostigmin bromide (7 to 15 tablets, each containing 15 mg. daily), combined with ephedrine taken orally, the improvement was never great though it was definite. With the use of these drugs, she could swallow and there was some improvement in the movement of the eyes. When prostigmin was given parenterally the signs could be made to improve considerably more than with oral medication. She received glycine daily for a period of three months in 1940 without benefit.

She was observed over a period of three years during which time she gradually lost weight, and developed considerable atrophy of all of the voluntary muscles. She retained remarkable strength in the extremities despite the profound muscle atrophy, though she demonstrated fatigability readily with repetitive movement. Her best weight had been 100 pounds just before the

onset of her illness in September, 1938. In February, 1940, she weighed 90 pounds and in August, 1942, her weight was 76 pounds. She suffered from repeated upper respiratory infections.

On May 11, 1942, thorough fluoroscopic examination and lateral roentgen ray plates of the chest failed to reveal a mediastinal mass. Thymus gland removal had been discussed with her previously and she refused the operation. Roentgen irradiation of the thymus region was begun on May 19, 1942, and discontinued on June 18, 1942. She received ten treatments, a total of 2400 r; 1200 r over each of two ports measuring 10x15 cm., anteriorly over the suprasternal notch and

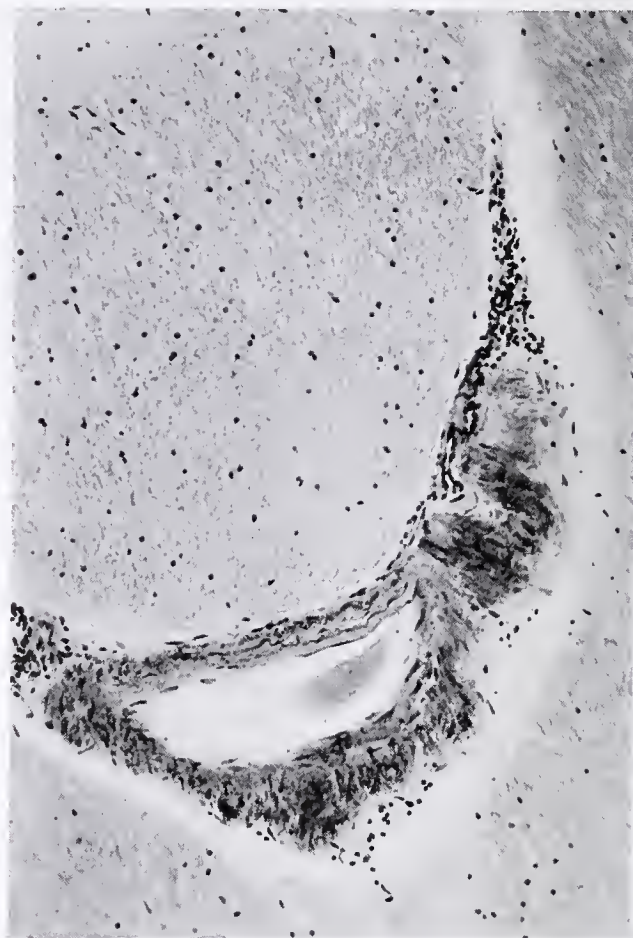


Figure 1. Perivascular lymphocytic accumulation in the white matter of the cerebellum. Hematoxylin and eosin. x 165.

upper half of the sternum and posteriorly over the upper thoracic vertebrae.

She soon noted less fatigue in the upper extremities and could manipulate the tongue much better. She said that she had received more benefit from roentgen therapy than from the prostigmin. The dose of this drug was reduced to four 15 mg. tablets a day sublingually. The neurological examination remained virtually un-

This is the fourteenth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

The authors represent respectively the Neurological Service and the Pathological Service of the Cincinnati General Hospital.

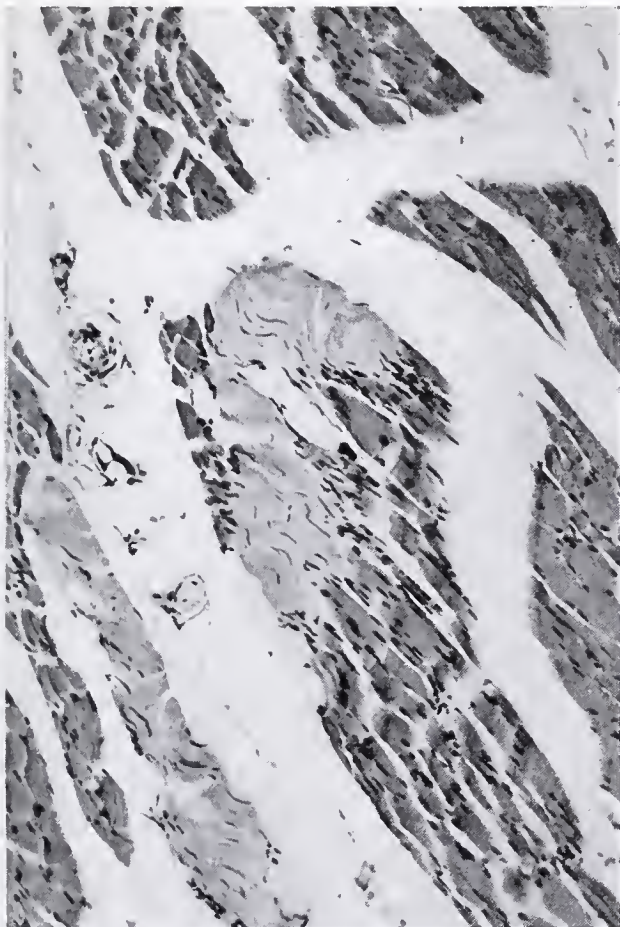


Figure 2. A section of the biceps muscle to illustrate a sharply demarcated area of necrosis. Note proliferation of sarcolemma nuclei at the border of the lesion. Hematoxylin and eosin. $\times 185$.



Figure 3. A section of the cardiac muscle to illustrate areas of necrosis similar to those in the skeletal muscle. Hematoxylin and eosin. $\times 165$.

changed except for the remission of fatigability in the upper extremities.

On September 26, 1942, she developed what was considered to be one of her usual upper respiratory infections; and she died unexpectedly one day later while resting in bed at home. Her death occurred exactly four years after the onset of the first symptom.

There was no alternative to the diagnosis of myasthenia gravis. Laboratory studies including tests of visual acuity and visual fields, a determination of the basal metabolic rate, thorough analyses of the cerebrospinal fluid, blood, and urine, and blood Kahn tests, all were normal.

The muscle atrophy and loss of weight were progressive; and were in the face of maintenance of her usual strength in the extremities and of hyperactive tendon reflexes. The planter responses always were flexor in type.

Necropsy (S-42-122): The abnormal findings in the organs other than the muscle and nervous system were acute and chronic bronchitis, terminal lobular pneumonia, leiomyomata of the uterus, and generalized arteriosclerosis.

The brain weighed 1505 grams and was grossly normal in appearance.

Histologic examination: Sections taken from the cerebral cortex, hypothalamus, pons, medulla, and cerebellum were prepared with hematoxylin and eosin, hematoxylin and Van Gieson, and cresyl-violet stains.

The neuropathologic changes were essentially perivascular cellular reaction and circumscribed areas of disintegration of nervous tissue.

The perivascular cellular reaction was not pronounced, though it was quite evident especially in some of the sections of the medulla and cerebellum. It consisted of a slight accumulation of lymphocytic cell elements within the perivascular spaces of smaller arteries and veins (Figure 1). The brain tissue around the slightly distended perivascular spaces appeared normal. There was diffuse thickening of the coats of some of the smaller arteries a few of which contained a large amount of calcium, particularly those in the white matter of the cerebellum. There was congestion of the smaller veins and capillaries throughout the brain substance and a few minute perivascular hemorrhages within the hypothalamus.

There were diffusely scattered areas of nerve cell destruction associated with a moderate degree of glial replacement. Though some nerve cells appeared to be normal, the degeneration of others was quite obvious.

Sections were taken from the diaphragm, biceps, and psoas muscles. In all there were scattered areas of necrosis and degeneration. In these areas the muscle had lost transverse striation of the fibers, and marked thickening and homogenization of the muscle fibers had occurred and was associated with partial replacement by connective tissue (Figure 2). Proliferation of the sarcolemma nuclei was especially marked at the edges of the necrotic areas.

In the hematoxylin and Van Gieson stain the affected areas stained more darkly and homogeneously than the adjacent healthy fibers. In transverse sections a number of fibers appeared

markedly swollen. They were rendered conspicuous by their rounded contour and great size and by their pallor and homogeneity. Because of the great irregularity in size and shape of the muscle fibrils the usual mosaic-like pattern on cross section was no longer recognizable.

The preparations of cardiac muscle revealed changes quite similar to those described in the skeletal muscle (Figure 3). In addition there was to be seen a marked hypertrophy of the muscle fibers adjacent to the necrotic areas.

The thymus contained closely packed masses of normal gland cells; there were a few traces of Hassall's bodies. The majority of the cells were of the lymphocytic type.

COMMENT

Atrophy of muscle in myasthenia gravis usually is moderate or absent, and marked atrophy is decidedly unusual. About 10 per cent of cases show some muscle wasting clinically and the muscles affected are those involved by the myasthenia.

The muscles of patients dying with myasthenia gravis have been commented on variously. Lymphoid cell deposits termed "lymphorrhages" have been found in many organs, and especially in skeletal muscles. Some writers have regarded the cellular accumulation of metastases from the thymic tumor. Either of these abnormalities is present in about 50 per cent of cases. Generally speaking the muscle fibers bordering the lymphorrhages are healthy, but occasionally they have undergone degenerative changes.

There are reports of changes in the skeletal muscles unassociated with cellular accumulation. Fatty degeneration or irregular atrophy of fibers have been noted inconsistently.

It would appear that cases of myasthenia gravis afflicted with muscle atrophy are not as reversible with the methods of therapy, which usually temporarily improve myasthenia. This patient obtained some benefit from prostigmin, as chewing and swallowing were inefficient without it. She ran the gamut of therapy as noted in the case report. The improvement obtained in her instance was the poorest of that of any of our patients.

Neither did she obtain the benefit from roentgen irradiation of the thymus gland that has been obtained by other of our patients, possibly the latter observation is related to the fact that she had no demonstrable abnormality of the thymus gland.

The perivascular accumulation of epithelioid and lymphocytic cells within the nervous system is an unusual observation, but has been commented on previously. (Scheinker,¹ Zajewloschin.²) The significance of the nervous lesions is not known.

Discrepancies in Serologic Findings

The conflicting findings that are directly attributable to faulty technical work present a perplexing dilemma for the medical man. As has been previously intimated, there is no way of compensating for the vagaries and inconsistencies which may result from the improper conduct of tests due to indifference, or lack of knowledge or training. It is, moreover, difficult for the profession to judge the laboratory which is doing good serology. The safe attitude is the patronizing of a laboratory in which recognized procedures are being carried out under careful check at all times. The state health departments, which maintain an approval system for laboratories, contribute a valuable service through the insistence upon high technical and educational standards.

Another general thought to be borne in mind is that a serologic upstroke almost invariably accompanies the invasion of syphilis and that, once the invasion is completed, practically all well-conducted procedures give positive findings. Under effective treatment the test findings are unevenly reduced or reversed. The bulk of discrepant results are found in this category of patient. When a history of previous infection and therapy are obtainable, the import of conflicting serology is minimal, as the continuation of therapy, or the approval for marriage, will be predicated upon conditions and circumstances other than the serologic findings. Discrepant findings may be considered as the rule, rather than the exception, in patients who are responding to treatment or who are in the initial stage of serorecurrence.

The troublesome instances of conflicting serology occur in patients who do not give a history of previous infection and therapy. In those the possibility of a false positive finding should always be given consideration. The serology is usually that of low-reading positive or doubtful reactions with some methods and negative findings with others. As a basic premise it may be stated that this is not the expected picture of an untreated syphilis of any appreciable duration. It is the picture frequently encountered in syphilis which is responding to therapy. Hence, in the absence of history and clinical evidence of syphilis, consideration should always be given to the possibility of the atypical findings being an expression of the influence of a condition other than syphilis. It is only rarely that an arbitrary diagnosis of syphilis and the beginning of treatment are warranted upon the basis of this type of serologic findings.—J. F. Mahoney, M.D., Staten Island, New York; N.Y.S. Jr. of Med., Vol. 43, No. 9, May, 1943.

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The Importance In Nutrition of Manganese

JONATHAN FORMAN, B.A., M.D.

ANOTHER one of the vital trace elements in the soil is manganese. It acts in cooperation with zinc and copper as a catalyst to assist certain nutrients to do their part as they come into the plant. The processes of nitrogen fixation and ammonification in the soil are dependent upon the presence of manganese. It is usually in soils which are high in calcium carbonate. Manganese deficiency has been recorded in oats in South Carolina where the plants were growing in a highly limed soil. The amount of manganese required to supply one acre of corn growing so as to yield 100 bushels, according to Salter, is to be found in one pound of potassium permanganate. H. P. Cooper recommends that from 25 to 50 pounds of manganese be added to each acre of cotton in order to prevent serious deficiencies.

This element has long been known to exist in plants. It hastens the rate at which living things change their food into energy. It has a part in the making of chlorophyll and in the making of sugar in the plant. To it is ascribed the job of activating oxidizing enzymes. Manganese deficiencies in garden crops are doubly important in these war days. It is applied to prevent chlorosis to the truck garden crops on the calcareous soils of Florida where such crops fail to grow without it. Manganese is of economic importance in the growth of tomatoes, spinach, beets, snapbeans, cucumbers and cabbage. The signs of manganese deficiency in all these plants are pretty uniform. The leaves curl, and small brown pin-point areas of necrosis set in on the leaf farthest from the veins. Then the surrounding spot turns yellow and develops a mottled appearance.

In Florida, also, manganese deficiency is of frequent occurrence among the citrus fruit trees. It has also been reported from New Zealand and California. It appears to be due to leaching in the acid soils and to insolubility in calcareous soils. Consequently it is usually found to be associated with deficiencies in other trace elements.

Intoxication from manganese has been produced in greenhouse soils. It has been suggested on the basis of such experiments that certain symptoms seen in crops here in our central States may be due to manganese toxicity. We must never forget that the non-toxic range of most of the minor elements in the soil is very narrow.

The analytic figures assembled by Beeson, shows that there is a wide range in the manganese content of various plants. For instance, according to the figures which he collected, alfalfa in full bloom varied 66+ in its manganese content; beans 2+; beet leaves, 12+, beet roots 5+; blueberries 3+; cabbage 87+; carrot roots 18+; cauliflower 4+; clover 22+; collard leaves 6+; dates 27+; lespedeia 6+; oats straw 411+; oat grains 4+; peas 2+; potatoes 4+; rye grain 5+; strawberries 7+; sweet potato tubers 9+; wheat 52+.

Some of the best food sources of manganese are: blueberries, nuts, whole wheat bread, legumes, rice, and turnip greens.

The universal occurrence of manganese in animal tissue and the fact that it is necessary for plant development would suggest that manganese would be needed by the animal body.

Rats born of mothers on a low manganese diet have a high mortality rate and are usually not strong enough to survive birth. Female rats when deprived of manganese failed to suckle their young. They appeared to be indifferent to their offspring and did not give them opportunity to feed. If these neglected manganese-free young were given to foster mothers to rear they were undersize and inferior although they had all the milk they wanted. Male rats raised on manganese-free diet show only a testicular degeneration and atrophy. This results in complete sterility, although litter mates receiving the same diet to which has been added the merest trace of manganese keep their sexual potency for the normal length of time. Without manganese mice on a diet of whole milk supplemented with iron and copper did not grow as the controls and did not ovulate normally. This is in distinction to the rats who although they were unsuccessful mothers exhibited normal estrous cycle. From the experimental data available it is evident that manganese plays an important role in the development of the fetus. Fertility, however, persists in the female rat on a diet so low in manganese that the young die in utero or are markedly debilitated at birth.

To the farmer manganese deficiencies are of considerable importance. In young chicks, within a few days the symptoms of perosis begin to make their appearance.

The tibiotarsal joints (hocks) become enlarged resulting in deformity and finally a slipping of the tendons. This disease has been reported in various wild birds including pheasants, grouse, quail and sparrows. If, on the other hand,

This is the seventh of a series of editorial summaries on the so-called trace elements on Conservation, Nutrition and Human Health.

adult chickens do not get enough manganese no noticeable change in the leg joints occur, but the shells of their eggs become ever so much thinner. If the deficiency is sufficiently great egg production is decreased and the eggs that are produced fail to hatch. The reason for this is that chondrodystrophic embryos die in the shell. Fifty parts per million of manganese in the feed will give adequate protection to chicks against perosis. Corn and milk are poor sources of the element; while wheat bran or middlings and rice bran are relatively rich sources. There is a lameness in pigs fed on rations consisting of yellow corn, tankage, soy bean meal, ground alfalfa, and salt. Such pigs develop stiffness, enlarged hock joints, and crooked legs as in rickets. Giving them lime, phosphorous and an abundance of Vitamin D, however, does not prove to be the remedy. Sixty parts per million of manganese in the feed of pigs will prevent this condition, but will not remedy it once it has become established.

In cases of sterility in cows where ovarian cysts were found, it has been reported that injections of colloidal manganese have been followed by successful pregnancies. It appears that manganese in very small quantities is necessary in the human diet, although its particular action in the body is not known. It is found in the greatest amounts in the liver, pancreas, and suprarenal. During pregnancy manganese passes into the bloodstream of the unborn child and the feces of the newborn infant are extremely rich in it. Its relation to perosis suggests the possible necessity of this element for normal bone development and growth. Studies indicate that as little as one ounce of manganese taken over a period of 15 years would be quite enough for any child. Everson and Daniels have found that the element is retained in children in proportion to the amount ingested and they suggest that the diet of a child should contain between 0.2 and 0.3 milligrams per kilogram body weight.

It has also been suggested that its absence might have something to do with the enlargement of the joints in hypertrophic arthritis. Some livestock authorities feel that it has a part to play in resistance to Bang's disease and they ascribe this to a role in the production of complement. Some authorities also suggest that the function of manganese may be concerned with the development of the pituitary gland and the regulation of the sex glands.

The use of injections of colloidal manganese have had a fling in treatment of certain mental conditions and a variety of skin diseases. One or two of the British allergists have expressed the opinion that they were helpful in respiratory allergy.

Chronic manganese poisoning has been recog-

nized for both man and animals. It usually results from exposure to any of its compounds in the industries. Susceptibility varies considerably. Symptoms closely resemble Parkinson's disease. They consist in slowly progressive motor ataxia without sensory disturbances. They begin with weakness of the legs; difficulty in speech; swallowing and facial expression, cramped handwriting; other muscle groups may become involved. The victims are unusually susceptible to pneumonia. The prognosis is good as to life, bad as to recovery; there is no effective treatment.

Butter Fat

Attention is directed to the advice in a paper by F. C. Bing, (*M. Clin. North America* 27:299 March, 1943) that most of the fat should be butter fat. With the drastic restriction on butter fat now in force, this is impossible in practice. It is questionable how long cream can be kept free from rationing restrictions since production of butter fat cannot be increased rapidly. This limitation tends to reduce the intake of vitamin A, for the better sources of this vitamin are from butter, cream, and cheese. The value of skim milk as a source of vitamin A is not to be underestimated, but again we must recall that this portion of milk cannot be produced in greatly increased amounts. It does seem wiser to use skim milk or milk solids for human food rather than for the manufacture of plastics. This is merely a suggestion that the American people ought to learn to eat more skim milk products.

SYNTHETIC VITAMIN C

Due to the perishable nature of fruits and of the vitamin C they contain, the increasing cost of fresh foods, the rationing restrictions on canned juices, and transportation problems, there is a rapidly growing dependence upon synthetic vitamin C. The daily requirement of this vitamin was formerly thought to be about 30 mg. per day, but more recent observations on humans indicate a need of 75 or more mg. daily. The alarming feature of this source of vitamin supply is that the manufacturing capacity of the few plants making vitamin C is far less than the present demand and that for the present there is less vitamin C available than the domestic market calls for. Incidentally, there is a tremendous requirement for export of this vitamin to our allies.—Elmer L. Sevringhaus, M.D., Madison, Wisc. *M. Jour.*, Vol. 42, No. 5, May, 1943.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

CASE FINDING IN NEW YORK CITY

Case finding is the major activity of the Department of Health in New York City in the prosecution of its campaign to control tuberculosis.

In consideration of the known overcrowding in institutions in the city and the number of cases at home but in need of some form of institutional care, it is estimated that New York City needs 3,000 additional beds. As important as adequate beds may be in providing treatment or isolation for the active or infectious case, there is no cause to delay or curtail an aggressive case-finding program. That program during the past is responsible in large part for the beds now available and the present deficiency will only be met if there is a demonstrated need for them.

The basic program in case finding must start with a search for disease among those in close contact with an open case. This problem is particularly important where congested housing and similar opportunities for close contact exist. In order to make existing clinic facilities available for an increasing load of screening apparently healthy people drawn from groups of known high tuberculosis incidence, it has been necessary to develop a system that will do so without decreasing the effectiveness of the search among contacts.

Changes resulting in a saving of about 6,000 man-hours of labor per year have been introduced, without any apparent loss of efficiency in examining contacts. Previously, each new case admitted had the regulation history form completed, was given a physical examination; children were tuberculin tested using 0.1 and 1.0 mg. O.T. (Mantoux). Reactors were X-rayed, as were all adults above the age of fifteen. Rarely did more than 5-10 per cent reveal findings sufficient to call for further study.

The new procedure replaces the regular history with a 5 x 8 inch card providing space for contact history and presenting symptoms. A physician sees each case briefly. Complete examination is made only in those rare cases warranted by a suggestive history. Most cases proceed directly to the X-ray department. If the radiograph is negative, further examination is not done unless the individual is over 10 years of age and recently exposed to open tuberculosis. Those with suspicious or manifest evidence of disease by radiograph are called back to the clinic for complete history, physical examination and other

investigation and are supervised appropriately. Children between the ages of 3 and 10 with normal X-ray findings are not routinely supervised until they pass the latter age and then in accordance with their continued exposure to a bacillary case.

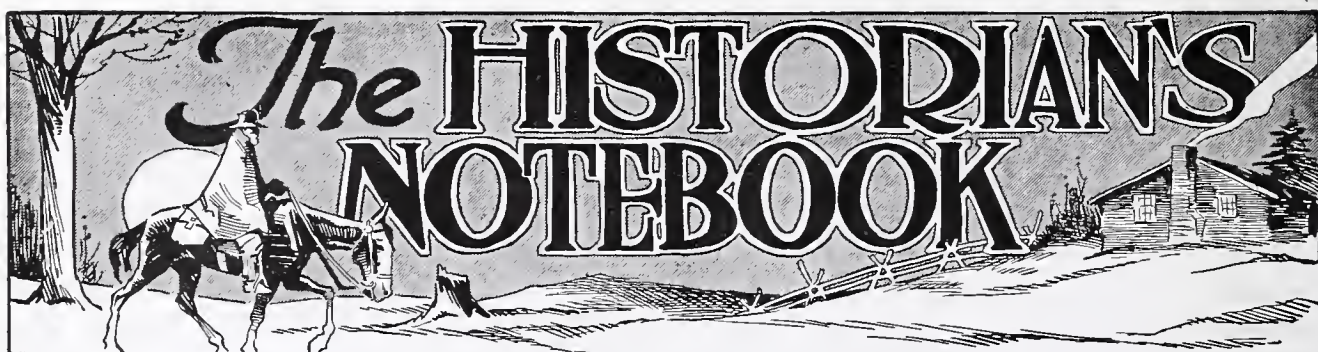
The application of these principles has resulted in reduction of the case-load carried in all clinics, permitting more attention to the significant cases and extending the use of clinic facilities in reaching others. There has been noted improved staff morale and greater satisfaction among the patients.

The mass survey, as a method of case finding, has been developed according to well conceived ideas based on demonstrated mortality and morbidity figures. Tuberculosis is more prevalent in tenement house areas and among the poor and unemployed than among those of better social or economic surroundings. In New York City the major problem in tuberculosis exists among the colored population. The mass survey of the colored of all ages is indicated.

Information gained from mass surveys in New York City has made it possible to indicate clearly where to expect most tuberculosis by age, sex, color and economic groupings. Highest yield came from a group of homeless and non-settled males, with 54 cases per 1,000, while the lowest was only one significant case per 1,000 among the pupils of a high school.

Today, national existence depends on national defense and this, in turn, on national fitness. One of the most serious problems confronting public health administrators is tuberculosis, a most communicable malady and one that invariably increases during periods of war. The safest defense, so far as tuberculosis is concerned, is to find the cases now and get them under supervision so that there will be less opportunity for advanced disease to develop and, thereby, less chance for the further spread of infection to others.

Case finding is the basis of tuberculosis control in the program of the New York City Department of Health. Three major efforts in case finding have been presented. Through these sources 799,659 persons were examined between 1933-40 with the result that 37,339, or 5 per cent, were found to have significant lesions.—Herbert R. Edwards, M.D., *Am. Rev. of Tub.*, March, 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., Cincinnati, Ohio

(Continued from May issue)

A CASE of malignant stenosis of the gullet was reported by Dr. W. D. Hamilton of Columbus. The patient was 68 years old and had lost 30 pounds because of his inability to swallow sufficient nourishment. Under ether anesthesia, through a three inch oblique incision parallel to the costal cartilages a part of gastric wall we pulled as a cone one and one-half inches through the wound and the peritoneum stitched to the base of the cone. The cone was brought through the skin one and one-half inches above the lower rib; opening the outer end of the cone a rubber tube for feeding was inserted into the stomach. The patient gained in strength and weight for awhile but died some three months later of marasmus.

"Removal of a Chylous Cyst of the Mesentery" was reported by T. C. Hoover of Columbus because of the rarity and the difficulty of their removal. The patient was seen in 1890 and was 23 years old, in good health until about eight months before when she began to have abdominal distress, and noticed a lump in the right lower abdomen about five inches in diameter but freely movable. Menses were normal. At operation a tumor much like an ovarian cyst was found attached to the mesentery. To deliver it it was first tapped and three pints of lemon yellow fluid were removed. It was enucleated removing it from its bed. Slow recovery was made and she went home in the fourth post-operative week. Only about 30 such cases, all told, had been reported in the world.

One can not overlook, during this second World War, an article read at the fifty-first session of the Ohio State Medical Society meeting in

Cleveland, in May, 1896, on the subject of "The Present Status of Military Medicine and Surgery", by J. E. Pitcher, M. D., Ph. D., of Columbus, Captain in the Medical Department of the United States Army. At that time the military medical officer was beginning to have greater weight and he was no longer a subordinate paid to attend upon the sick whenever they desired his services; the commanding officer was directed to comply on medical cases with the recommendations of the medical officer. The number of cases in which operative action was then required as compared with earlier years was rapidly growing, while the time available imposed on the military surgeon a necessity for dexterity and rapidity of work never before known. Anesthesia rendered deliberation and detail possible for surgery in civil life so that the old fashioned "lightning operators" practically perished; but the increasing destructiveness of the then modern armament had made necessary great speed in the army surgeon, and the operation that permits of the greatest rapidity in performance was the one usually chosen.

The most important thing to secure in operations for "oblique inguinal hernia", J. C. Oliver said in his paper, is union by first intention as suppuration is fatal to the desired result; he said experience has shown us that silk and cat-gut should be avoided. Some advised buried sutures of silver wire. The speaker felt that kangaroo tendon was the best for the buried sutures. Dr. Oliver called the members attention to the fact that the variety of operations for the radical cure of hernia were legion, and a satisfactory method hard to secure. He felt a majority of surgeons had come to the conclusion the method of Bassini was the most scientific and

most satisfactory. This operation was first described in Italy in 1888.

At this state meeting Dr. Joseph Ransohoff read a fine paper on "The Surgical Treatment of Tubercular Lesions", dealing particularly with lymphatic glands and of the articular ends of bones and joints. He stated amputations for tuberculosis of the wrist will often afford the quickest and safest road to recovery.

T. W. Jackson reported one unusual "Case of Extensive Skull Fracture" upon which he operated four days after an injury to the right side of the skull. When seen the patient was conscious but unable to talk and had a paralysis of his left leg and arm. The operation was performed under lamplight and lasted three-quarters of an hour. The operation is described in great detail. About four square inches of depressed bone were removed and strands of silk placed in the wound to provide drainage. The wound was healed in six days and the patient returned to his home on the eighth day post-operative with the complete relief of all symptoms except loss of power in the left leg.

The advance of asepsis was beginning to be appreciated by the doctors of Ohio in 1897, as shown by the following from the Presidential address at Cleveland in May, the title of which was, "The Evolution of Aseptic Surgery" by F. C. Larimore of Mt. Vernon, Ohio. "No man works better than he looks; never better than he feels. If a man feels unkempt, the work he does will be of the same grade. If, on the other hand, he feels clean, he works clean. Cleanliness of body and neatness of dress are distinctive factors in a physician's success. . . . In my experience, no substitute for the loss of a night's sleep is equal to the tonic invigorating effect of a bath. . . . A few hundred dollars expended for the means necessary to keep clean will be the best investment of a whole life time".

A new method for producing surgical anesthesia was reported by Dr. George W. Crile of Cleveland. The day before making this report, May 18, 1897, he made use of this method for the first time in an operation for amputation of the leg of a boy seven years old. It consisted of cutting down on the nerve trunk under local anesthesia and anesthetizing them by injection of a small amount of cocaine into the nerve trunk. This anesthetized the area supplied by the nerve and blocks all impulses ordinarily transmitted and prevents pain and eliminates the usual shock of the operation. Very interesting questions were asked by Drs. W. E. Wirt and A. R. Baker of Cleveland, J. C. Oliver and R. B. Hall of Cincinnati, and others.

R. Harvey Reed of Columbus, read a most enlightening paper on "The Preliminary Conduct of Intestinal Obstruction". He said it is a

common custom to not only resort to cathartics and drastics in intestinal obstruction but to continue their use until not only the entire mucous tract above the obstruction is intensely irritated, but the muscular and serous coats are congested and often times they are found in an acute inflammatory condition. He concluded that the continued use of cathartics in these cases unfits the patient for a successful operation. The use of opiates in these cases, while it allayed the pain, masked the symptoms and lead the patient, his friends and the physician astray. Dr. Reed entered his protest against the use of cathartics in possible obstruction cases as making any operation dangerous and an exploratory incision, to effect a diagnosis, is a much more wise procedure.

"A Case of Intra-peritoneal Gestation at Term" was reported by M. Rosenwasser, M. D., of Cleveland as having been operated upon in February, 1897. Under chloroform anesthetic a sound was introduced 5" to the fundus. The abdomen was opened and a gestation sac found across which lay the omentum. Loosening these the fetal skin of a macerated female fetus weighing six and one-half pounds was found. Many adhesions were relieved. Bleeding was a serious difficulty. The history of such cases at that time were almost universally fatal but this patient left the hospital in excellent condition in about seven weeks. The first undoubted case of this type was described by Webster in 1892.

"Intestinal Obstruction—Operation and Recovery" was the title of the paper by Sherman Leach of Columbus at the fifty-third annual meeting of the State Society at Columbus in May, 1898. This paper was presented to the society to condemn a long existing practice, namely the too free use of drugs to relieve some unknown condition until peritonitis had developed and the hope of saving a life had passed. The author said the use of drugs is important, but their sphere of usefulness is of short duration.

E. W. Walker of Cincinnati reported 13 cases of osteo-sarcoma of the femur of which 11 were operated upon. One case, a 22 year old woman with some cachexia on whose request at the first operation, the tumor was enucleated. On the eighth post-operative day there was a severe hemorrhage which tore open the wound. Two days later a second severe hemorrhage occurred which necessitated the ligation of the femoral artery above and below the bleeding point. Collateral circulation was not established so on the 20th day following the first operation the thigh was amputated at the upper third. The patient was well two years later having had no recurrence of the sarcoma.

(To be Concluded)

Recent Smallpox Outbreak in Ohio is Warning of Need For Care in Diagnosis and Extensive Vaccination

R. H. MARKWITH, M.D., Columbus, Ohio
State Director of Health

NINETY-SEVEN cases of smallpox were reported to the Ohio Department of Health from January 1 to May 15, 1943, compared to 21 cases reported in 1940; 23 cases in 1941, and 31 cases in 1942. The following counties have reported cases of smallpox since January 1, 1943: Ashland, Belmont, Butler, Columbiana, Cuyahoga, Erie, Holmes, Jefferson, Knox, Licking, Ottawa, Richland, Summit, Tuscarawas and Wayne.

The recent outbreak of smallpox which has occurred in Steubenville and Jefferson County created a serious problem not only in Ohio, but also to West Virginia, because a large number of residents of Ohio are employed in the steel mills in West Virginia.

MANY VACCINATED

The local health departments in Jefferson County, the State Department of Health, and the United States Public Health Service, received excellent cooperation from the local medical profession, the Office of Civilian Defense, and the citizens of that area, in conducting a most extensive vaccination program in a very short period of time. In Steubenville, a city of 35,000 population, 28,186 individuals were vaccinated in a period of three weeks, and many thousands of residents of Jefferson County were vaccinated during the same period of time. Several of the large steel mills in this vicinity now have practically 100 per cent of their employees vaccinated.

This intensive program of vaccination became necessary because several families believing they had chickenpox exposed a large number of residents of this area to smallpox.

Intensive vaccination programs have been conducted in all of the counties where smallpox has occurred. The City of Cleveland is now considering an intensive vaccination program in the schools and industry.

DIFFERENTIAL DIAGNOSIS

Chickenpox is regarded as an important disease from a public health point of view, in that making a differential diagnosis between chickenpox and smallpox is frequently very difficult. A belief that only smallpox occurs in the palms of the hands and soles of the feet has been disproven because it has been found that in chickenpox the lesions do occur in the palms of the hands and the soles of the feet.

One of the differential points between these two diseases is that in smallpox a prodromal

period of three to four days occurs, presenting severe symptoms similar to those of influenza, characterized by a temperature, headache and backache. The onset of chickenpox is generally of only one or two days duration, and not as severe as that experienced in the prodromal period of smallpox. Frequently chickenpox may occur without any prodromal symptoms.

In the present outbreak, physicians have reported to the State Department of Health that they were called to see patients who were ill during the prodromal period with influenza-like symptoms. A tentative diagnosis of influenza was made, and due to the physicians not being requested to revisit the patients when the rash appeared, a number of cases were undiagnosed as smallpox.

TWO RASHES ARE DIFFERENT

The occurrence of the rash of these two diseases presents an entirely different picture. The rash of smallpox occurs more abundantly upon exposed surfaces, as the face, hands and wrists, and diminishes toward the torso. In chickenpox the rash is more abundant upon covered surfaces, and diminishes toward the distal part of the extremities. The lesions of chickenpox practically always appear in the axilla. Those of smallpox are seldom observed in this region.

When the rash of these two diseases is observed upon a small surface of the body, it will be found the lesions of smallpox are uniform and of the same stage while those of chickenpox are not uniform, and may appear in macules, papules, vesicles and crusts in the same small area of the body observed.

BE ON THE ALERT

Smallpox should always be suspected when an adult, either unvaccinated or not vaccinated since childhood, develops symptoms ordinarily associated with chickenpox. This is particularly important when smallpox is known to be prevalent.

A vaccination of more than five years cannot be depended upon for protection against smallpox. An individual who is revaccinated will show an immune reaction, characterized by redness and itching at the site of the vaccination within 48 hours after vaccination, if his previous vaccination still provides a protection against smallpox.

A vaccinated population will not develop smallpox, and for this reason every practicing physician in Ohio is requested at this time to encourage his patients to be vaccinated at this time.

Second Annual Conference on Conservation, Nutrition and Human Health To Be Held June 26-27 at Tar Hollow

THE second Annual Conference on Conservation, Nutrition and Human Health, sponsored jointly by the Ohio Division of Conservation and Natural Resources, State Department of Education and the Ohio State University, will be held at Tar Hollow in the Ross-Hocking Forest, 18 miles east of Chillicothe, on Saturday and Sunday, June 26-27.

Physicians, health workers, nutritionists, teachers, soil experts, foresters, sportsmen, and friends of wild life have participated in previous conferences which have attracted national attention because they have been the first to call a group of experts to present nutrition "from the ground up".

The complete program, arranged by Dr. Jonathan Forman, Editor of *The Ohio State Medical Journal* and Ollie E. Fink, director of the Conservation Laboratory at Tar Hollow, follows:

SATURDAY, JUNE 26

Afternoon Session

JONATHAN FORMAN, M.D., *presiding*

- 1:15—"Conservation Education in Ohio", Ollie E. Fink, Curriculum Supervisor of Conservation Education in Ohio.
- 1:45—"Trapping the Raindrop", W. D. Ellison, supervisor, Northwest Appalachian Soils and Water Conservation Experiment Station, Coshocton.
- 2:45—"The Importance of These Trapped Raindrops to Plants, Animals and Man", H. L. Shantz, Chief, Game Management Division, U. S. Forest Service.
- 3:45—"Weather and Man", William Peterson, M.D., professor of pathology, University of Illinois College of Medicine, Chicago.
- 4:45—"The Biology of Growth", Norman C. Wetzel, M.D., assistant professor of pediatrics, Western Reserve University School of Medicine, Cleveland.
- 5:30—Recreational Period.
- 6:00—Supper.

Evening Session

PAUL B. SEARS, *Chairman, State Conservation Education Committee, presiding.*

- 7:30—"The Fight to Save Our Land", Hugh H. Bennett, chief, Soil Conservation Service, U. S. Department of Agriculture.
- 8:30—"The Future of This America of Ours", Louis Bromfield, Mansfield, famous novelist; vice-president, The Friends of the Land, and member, Ohio Division of Conservation and Natural Resources.

SUNDAY, JUNE 27

Morning Session

JONATHAN FORMAN, M.D., *presiding*

- 9:00—"The Role of Iodine in the Nutrition of Soil, Bacteria, Plants and Animals", George M. Curtis, M.D., professor of surgical research, Ohio State University College of Medicine, Columbus.
- 10:00—"Calcium in the Soil for the Nutrition of Microbes, Plants and Animals", W. A. Albrecht, professor of soils, University of Missouri, Columbia.
- 11:00—"The Relation of Minerals and Other Soil Nutrients to the Vitamin Content of Plants", R. H. Lush, pasture specialist, The National Fertilizer Association.
- 12:00—Sunday Dinner.

Afternoon Session

OLLIE E. FINK, *presiding*

- 1:30—"Greetings from the Division of Conservation and Natural Resources Commission", George M. Trautman, Columbus, chairman.
"Brief Report on Ohio's Cooperative Conservation Education Program, and Introduction of the Governor", Don Waters, Columbus, Commissioner, Division of Conservation of Natural Resources.
"Ohio's Conservation Program", Governor John W. Bricker.
- 2:15—"The Importance of Minerals in Human Nutrition", Z. T. Wirtschafter, M.D., Cleveland (now located at Patterson Field as a Major in the Medical Corps of the Army Air Force). Author of "Minerals and Man".
- 3:15—"Conservation—The Basis of Human Progress", John D. Detwiler, professor of applied biology, University of Western Ontario, London, Ontario and President of the Canadian Conservation Association.
- 4:15—"Conservation, Nutrition and Human Health", Jonathan Forman, M.D., Columbus, Editor of *The Ohio State Medical Journal* and a practicing physician. Dr. Forman will summarize points discussed during the conference.
- 5:00—Adjournment.

Advance registration is necessary because of wartime food regulations. Accommodations are limited. Rustic cabins, each with individual cots for six people, are available. Those who attend are advised to bring their own bedding, if at all

convenient, as the supply of blankets, sheets and pillow cases is limited. It is recommended that three or four blankets be brought, as nights are cold in the forest.

Those who prefer may secure hotel services in Chillicothe. The distance is 18 miles, one way, over a very scenic forest road. Transportation will be provided from Chillicothe to Tar Hollow for those who desire it. Registration fee for the Conference is \$2.50. Lunch and dinner, Saturday, lodging (without blankets) Saturday night, breakfast and lunch, Sunday, will cost \$2.50 additional.

Requests for detailed information and reservations should be addressed to Ollie E. Fink, director, Conservation Laboratory, Room 601, State Office Building, Columbus. After June 15, reservations should be sent to Mr. Fink at Laurelville, Ohio.

Deadline for Re-registration Under Federal Narcotic Act is July 1; Be Prompt!

Each physician wishing to prescribe or dispense narcotic drugs, unless he is serving with the armed forces, must register on or before July 1, with the Collector of Internal Revenue of the district in which he maintains an office, and pay the Federal Narcotic Tax of \$1.00. Initial applications may be made at any time, but existing permits must be renewed on or before July 1, annually.

Application for re-registration must be made on Form 678, signed by the physician applying, and either acknowledged by two qualified witnesses or sworn to by a Notary Public or an official of the Internal Revenue Department. The physician must note on the application the number of his license to practice medicine in Ohio. The registration number assigned by the Department of Internal Revenue is retained from year to year. Remittance accompanying the application must be in the form of a postal money order or a certified check. Personal checks, not certified, will be returned to the sender.

An inventory of the narcotic drugs on hand in the physician's office must accompany the application, on Form 713. The regulations require that this inventory must be sworn to by a notary public or an official of the Internal Revenue Department, regardless of the quantity of drugs on hand.

Copies of these forms have been mailed by the Department of Internal Revenue to each Ohio physician already registered, with brief instructions covering the procedure to be followed in applying for re-registration.

Failure to re-register within the time allowed by law adds a penalty of 25 per cent to the annual tax payable at the time of registration and in addition makes the physician in default liable to a fine not exceeding \$2,000 or to im-

prisonment for not more than five years, or both. The Department of Internal Revenue has given some tardy registrants the choice between paying an amount by way of compromise in lieu of the statutory penalties for their offenses, or as an alternative, accepting criminal prosecution with resultant publicity and liability to fines and possible imprisonment. **Strict adherence to the law will obviate the necessity for such action, and protect the physician from needless embarrassment.**

Physicians who administer, dispense or prescribe cannabis, must obtain a special permit under the Marihuana Tax Act, and re-register annually on or before July 1, with the Collector of Internal Revenue of his district, and pay a tax of \$1.00.

A physician in the armed forces need not re-register. If such a physician should receive an application form for re-registration he should return it to the office of the Collector of Internal Revenue from which it was sent, together with a statement that he is in the armed forces, that he does not have in his possession any narcotics, and requesting that the registration number previously assigned to him be reserved.

A physician on entering service, who wishes to discontinue registration under the Harrison Narcotic Act, should return all unused order forms to the collector's office, and should dispose of all narcotics on hand, either by returning them to the wholesale concern from which purchased, if the packages are in unbroken form, or by transferring the narcotics to another physician, after having obtained permission for such transfer from the office of the Collector of Internal Revenue with whom he is registered.

Rehabilitation and War Surgery Program To Be Presented

The Fourth International Assembly of the International College of Surgeons will be held at the Waldorf-Astoria Hotel, New York City, June 14-16. Dealing with the subjects of "Rehabilitation" and "War Surgery", the tentative program includes: Papers by eminent authorities in the Grand Ballroom during both the morning and afternoon sessions and continuous round-table discussions on rehabilitation, war surgery, care of veterans and allied subjects. Many distinguished visitors are expected to attend, including high ranking medical officers of the Army and Navy, and delegations from South American countries. There will be exhibits to demonstrate activities in military-medical affairs and rehabilitation, as well as motion pictures in color of surgical procedures. The medical profession at large it invited to attend. Additional details may be obtained by addressing W. B. Pettit, c/o International College of Surgeons, 57 West 57th St., New York City.

Lag In Recruiting Medical Officers Noted in Surveys by Army and Navy Officials; Ohio Situation Reviewed; Find Too Many Young, Available Doctors Not Applying

EVIDENCE that recruiting of medical officers for the 1943 needs of the Army and Navy is lagging is reflected in several official statements which have been issued through the Directing Board of the Procurement and Assignment Service for Physicians, Washington.

Ohio was among the states which more than met their quotas in 1942 but Ohio is beginning to fall behind with respect to the 1943 quota assigned to it, according to Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Committee.

Commenting on the general situation in Ohio, Dr. Conard said:

"Too many younger physicians in metropolitan areas are refusing to offer their services, despite the fact that they have been classed 'available' by the Procurement and Assignment Committee and have received formal invitations to apply for commissions.

"Unless the Ohio medical profession continues to meet its obligation to provide medical officers for the services, as it did so well last year, it is probable that before long it may be found necessary to take more drastic action. This final step would be to certify to Selective Service the names of available doctors who refuse to apply for a commission and to request that agency to take the necessary steps to induct them into the service.

"Our committee consistently has avoided, thus far, resort to compulsion. Our results thus far have been satisfactory. With one or two exceptions, every Ohio doctor now in service is a volunteer. We cannot—we must not let Ohio fall behind in meeting the proper calls upon us and whatever steps are needed will be taken without delay.

RURAL AREAS TO BE PROTECTED

"In certain rural areas physicians of military age are being classified as 'unavailable' by reason of urgent civilian needs in their respective communities. This is in spite of the urgent requests by many of them that they be released for service in the Army or Navy. Unless the need for medical officers becomes critical, which soon may happen, conditions in the theaters of operations being as they are, these classifications will not be changed. In other rural areas great pressure is being exerted locally to retain men who actually could be spared. These areas are being studied by our committee and early action may be expected on these cases.

"Certain men who were rejected for physical

reasons more than a year ago, when standards were more exacting, may now be acceptable. These men are now being asked to re-apply for commissions. If finally rejected after re-examination, such men become available for civilian service, industry, teaching, public health or hospital residencies. Men previously rejected, and others who have not as yet applied, should communicate at once with the Columbus office of the committee, 1005 Hartman Theater Building, so that their status may be finally determined.

NEED FOR OFFICERS A REALITY

"The committee has noted a certain undercurrent of skepticism in some quarters as to whether the armed forces really need so many medical officers, and at times, thinly veiled criticism as to the use which is being made of the medical manpower now mobilized. All physicians are urged to study carefully the official statements of responsible officers of the several services quoted below, and to inquire carefully into the source and motives back of such criticism. It is the belief of our committee that the Directing Board of the Procurement and Assignment Service, in continual close cooperation with the War and Navy departments, has struck a fair balance between military and civilian needs so far as the situation permits, and that it is our clear duty to respond fully to the calls upon us."

Following are a number of official statements proving the existing need of the armed forces for additional medical officers:

Surgeon General Magee, United States Army—"The Army is increasing in size; more medical officers are required. New units are being formed and many general hospitals are under construction at many points in the United States. Some basic training must be given to medical officers before they are assigned to purely medico-military duties; for this reason they are needed one or two months prior to actual assignment"

Surgeon General McIntyre, United States Navy—"In order to plan intelligently I have reviewed the personnel situation in the Medical Department of the Navy. There is a deficit of approximately 900 medical officers for the next six months, based on minimal requirements. The Bureau of Medicine and Surgery calls medical officers to active duty when billets are available, does not build up too large a reserve at any time. Consequently, procurement must go on in an orderly fashion, if we are to meet the demands that will be placed upon us as the offensive fighting develops. We cannot afford to have the deficit

increase beyond its present level; if it does we will not be able to give first-class medical service to our wounded. We look to the medical profession of our nation to come forward with the available doctors that can be spared from civilian life, to aid in our military necessity. In the main, the profession has responded nobly. There are some localities where this is not so. In those localities the medical profession should cause the pressure of public opinion to bear on all eligible doctors and thereby bring to their attention the seriousness of failing to do their patriotic duty. The medical profession is faced with a challenge of furnishing medical service to the armed forces and to the civilian population during the active state of war and in the post war period, which we hope is not too far distant. Should the profession fail in either regard many forces may develop that will destroy the practice of medicine as we know it. This would be disastrous and it is something that we cannot afford to allow to come about. In all seriousness, the doctors of medicine in the United States should take stock carefully of their own immediate situations and should give every assistance in planning to see that medicine plays its responsible part in this and coming years".

Memorandum From Army Service Forces to Officer Procurement Districts—"The critical situation in the procurement of physicians * * * continues and is intensified. The following weekly figures for physicians (composite of all Field Offices) illustrates the unsatisfactory rate of progress in recent weeks: * * * steps must be taken at once to reduce the number of physicians' cases 'in process' and 'in suspense'. District Offices are directed to give urgent priority to all physicians' cases".

Dr. Frank H. Lahey, Chairman, Directing Board, Procurement and Assignment Service—"We must face one inescapable fact. Our fighting men, and those who must remain behind, must and will have medical care. It will be obtained one way or another. The choice of methods is still in our hands. The medical profession of this country never has failed the nation; it must not do so now".

APPOINTMENT OF WOMEN PHYSICIANS

On April 16, the President signed a bill enabling the commissioning of women physicians in the Medical Corps of the Army or Navy. The procedure with respect to the processing of applications of women physicians will be the same as that for male physicians. Women applicants must be cleared as available by the Procurement and Assignment Service and must meet the same educational and professional standards as male physicians. The War Department has announced that it is anticipated there will be some delay before it will be in a position to

Questionnaire From Every Doctor Vital; Mail Yours Today

THERE are some Ohio physicians who have not as yet returned the new Procurement and Assignment Questionnaire on Professional and Biographical Data, according to Robert Conard, Wilmington, chairman of the Ohio Committee.

Those who have not filled out and mailed the questionnaire to the committee's headquarters, 1005 Hartman Theater Building, Columbus, Ohio, should do so immediately for by **delaying they are seriously handicapping the committee in the assembling of information which is vital in making an analysis of medical facilities and personnel in Ohio at the present time.** Unless complete data is on record, the committee will be unable to assist communities where shortages may exist in solving their problems.

Physicians who did not receive a questionnaire or have mislaid the one they received may obtain a blank from the Columbus office.

This is not a "throw-away" questionnaire but one of great importance to the individual physician, to community health and to the maintenance of adequate services on the home-front.

recommend female physicians for appointment in the Army Medical Corps because of regulations, forms, etc., which must be prepared and issued. District Offices of the Officers Procurement Service are authorized to process the applications of any female physician certified as available by the Procurement and Assignment Service but have been advised to inform such candidates that there will probably be a considerable time-lag in the consideration of their cases by the Surgeon General. No official announcement has been issued by the Navy Department.

Increased employment in Ohio's war production plants resulted in the largest number of claims for workmen's compensation ever filed in any one month with the Ohio Industrial Commission, according to a report for the month of March made by Chairman Will T. Blake. There were 30,399 claims filed in March, 1943, an increase of 4,991 over the number received the previous month, and 239 more than in July, 1942, the previous high.

Names of 29 Additional Ohio Physicians Are Placed On Military Roster; Promotions and Data By Counties

SINCE the May issue went to press, *The Journal* has been informed that an additional 29 Ohio physicians have entered military service or have taken full-time positions with Federal agencies for the duration. As of May 20, the total of Ohio physicians in the services, including non-military agencies, was 2,495. The number in the Army is 2,152; Navy, 296; other services, 47.

Following are the names of those who have entered the service, the breakdown by counties, and promotions. These lists are unofficial. If there are errors *The Journal* would appreciate being properly informed:

Name	City	Rank
Alpers, Nathan	Cleveland.....	1st Lt., U.S.A.
Beekley, Henry Clay	Cincinnati.....	Capt., U.S.A.
Brown, Stanley E.	Cleveland.....	Capt., U.S.A.
Cahill, D. R.	Steubenville.....	Capt., U.S.A.
Destefano, Geo. A.	Cincinnati.....	Lt., U.S.N.
Duckwall, Henry M.	Dayton.....	1st Lt., U.S.A.
Fairo, Carroll J.	Cincinnati.....	Lt. Comdr., U.S.N.
Feldman, Edward G.	Columbus.....	1st Lt., U.S.A.
Fischbach, Wm. Morris	Cincinnati.....	Lt. (j.g.) U.S.N.
Goldman, Frederick, M.	Cincinnati.....	Lt. (j.g.) U.S.N.
Grace, Ralph S.	Cincinnati.....	1st Lt., U.S.A.
Greene, Geo. J.	Cleveland.....	Lt. Comdr., U.S.N.
Griffing, Walter H.	Cincinnati.....	1st Lt., U.S.A.
Hamilton, Henry E.	Cleveland.....	1st Lt., U.S.A.
Hamilton, Wm. S.	Cincinnati.....	Lt., U.S.N.
Jackson, Frank C.	Columbus.....	1st Lt., U.S.A.
McNeal, Elmore R.	Cleveland.....	Lt. (j.g.) U.S.N.
Nellins, Donald Chas.	Cleveland.....	1st Lt., U.S.A.
Nusbaum, P. W.	Chillicothe.....	Lt., U.S.N.
Paul, R. N.	Dayton.....	1st Lt., U.S.A.
Pugh, Albert E.	Martins Ferry.....	1st Lt., U.S.A.
Sabin, Albert B.	Cincinnati.....	Major, U.S.A.
Scroggin, Frederick R.	Cincinnati.....	1st Lt., U.S.A.
Smith, E. McCall	Dayton.....	Lt. Comdr., U.S.N.
Sogg, Solomon S.	Cleveland.....	Capt., U.S.A.
Stickley, Louis P.	Cincinnati.....	1st Lt., U.S.A.
Turner, Oscar A.	Cleveland.....	Major, U.S.A.
Weintraub, Josef D.	Cincinnati.....	Lt., U.S.N.
McCloskey, Jos. B.	Cleveland...	Asst. Surg. (R) U.S.P.H.S.

WIN PROMOTIONS

Name	City	Rank
Amstutz, Hubert M.	Lancaster.....	Major, U.S.A.
Bolton, Ralph D.	Canton.....	Major, U.S.A.
Borer, R. J.	Toledo.....	Lt. Col., U.S.A.
Coleman, Marion	Dayton.....	Comdr., U.S.N.
Cress, O. E.	Van Wert.....	Capt., U.S.A.
Edelstein, Jos. B.	Toledo.....	Major, U.S.A.
Effler, Don S.	Toledo.....	Capt., U.S.A.
Faul, Wm. L.	Georgetown.....	Major, U.S.A.
Huston, Harry R.	Dayton.....	Comdr., U.S.N.
Kemp, Hardy A.	Columbus.....	Lt. Col., U.S.A.
Kendell, M. M.	Youngstown.....	Capt., U.S.A.
Lulenski, C. R.	Cleveland.....	Capt., U.S.A.
Marinelli, A. C.	Youngstown.....	Major, U.S.A.
Newport, N. M.	Zanesville.....	Major, U.S.A.
Reading, Paul E.	Painesville.....	Capt., U.S.A.
Sackett, Geo. L.	Shaker Heights.....	Lt. Col., U.S.A.
Schneider, A. B., Jr.	Cleveland.....	Capt., U.S.A.
Smith, Eldon E.	Canton.....	Capt., U.S.A.
Sperry, Donald R.	Newark.....	Capt., U.S.A.
Thompson, James E.	Washington, C.H.....	Capt., U.S.A.
Tucker, Harry S.	Cleveland.....	Major, U.S.A.
Turner, Ray M.	Springfield.....	Capt., U.S.A.
Ulicny, Harry P.	Toledo.....	Capt., U.S.A.
Vorhies, Gerald E.	Scio.....	Capt., U.S.A.
Wright, Herbert B.	Cleveland.....	Lt. Col., U.S.A.

TABULATION BY COUNTIES

Adams 2	Guernsey 5	Muskingum .. 7
Allen 37	Hamilton 343	Noble 1
Ashland 11	Hancock 13	Ottawa 8
Ashtabula ... 17	Hardin 7	Paulding 2
Athens 12	Harrison 4	Perry 4
Auglaize 6	Henry 2	Pickaway 4
Belmont 10	Highland 8	Pike 2
Brown 4	Hocking 4	Portage 2
Butler 24	Holmes 2	Preble 7
Carroll 1	Huron 13	Putnam 5
Champaign .. 8	Jackson 1	Richland 39
Clark 31	Jefferson ... 31	Ross 20
Clermont 9	Knox 11	Sandusky 11
Clinton 7	Lake 17	Scioto 18
Columbiana .. 10	Lawrence 7	Seneca 12
Coshocton ... 4	Licking 17	Shelby 7
Crawford 9	Logan 9	Stark 90
Cuyahoga 592	Lorain 35	Summit 128
Darke 6	Lucas 149	Trumbull 29
Defiance 3	Madison 6	Tuscarawas .. 18
Delaware 5	Mahoning 102	Union 1
Erie 10	Marion 16	Van Wert 9
Fairfield 8	Medina 12	Vinton 2
Fayette 2	Meigs 1	Warren 4
Franklin 206	Mercer 6	Washington .. 6
Fulton 6	Miami 13	Wayne 12
Gallia 6	Monroe 1	Williams 9
Geauga 3	Montgomery . 125	Wood 15
Greene 8	Morgan 3	Wyandot 3
Total		2495

Handbook on Rheumatic Fever

"Rheumatic Fever in Children—Its Recognition and Management," a 32-page clinical handbook written for the practicing physician, has just been released by the Metropolitan Life Insurance Company. It assembles under one cover the modern concepts of the disease; its nature, diagnosis and prognosis and the individual and community problems involved in the care of the patient. A group of distinguished clinicians assisted in its preparation. Single copies of the handbook are being made available to physicians, without charge, chiefly through the 16,000 field representatives of the company. Physicians who wish a copy, and who have not secured one by June 1, should write to Dr. George M. Wheatley, Assistant Medical Director, Metropolitan Life Insurance Company, 1 Madison Avenue, New York, N. Y.

Fletcher's Castoria Stocks Recalled

In cooperation with the United States Food and Drug Administration, the Centaur Company, Rahway, New Jersey, manufacturers of Fletcher's Castoria, on May 5, warned all holders of Fletcher's Castoria to discontinue the sale and use of the article shipped since March 1, because it has been discovered that all Fletcher's Castoria which had been shipped since March 1, 1943, contained a foreign ingredient which causes nausea and vomiting. Persons having such shipments on hand were asked to return all stocks to the manufacturer for refund.

Special Programs Established by Army, Navy and Colleges For Training of Medical and Pre-Medical Students

ARRANGEMENTS which have been worked out by the Army and Navy with colleges and universities for the continued training of medical and premedical students were described in detail in the "Medicine and the War" section of the May 8, 1943, issue of *The Journal of the American Medical Association*.

The data and instructions set forth in that article are reproduced here for the information of premedical and medical students and the medical profession of the state generally as the question of continuing medical education during the war is of vital importance to the profession.

* * *

ARMY PROGRAM FOR STUDENT TRAINING

IN ORDER to assure the Army the annual loss replacements for medical, dental and veterinary officers, the Army Specialized Training Division has been directed to train a sufficient number of enlisted men, who, on receipt of the appropriate degree in medicine, dentistry and veterinary medicine, may be appointed in the Medical, Dental or Veterinary Corps, Army of the United States.

Such training will include both a preprofessional and a professional phase and as far as possible will be continuous. To this end, basic military training will not be required of enlisted men of the Enlisted Reserve Corps who are bona fide preprofessional and professional students and who, when called to active duty, are finally selected for premedical or medical training under the Army Specialized Training Program. Basic military training will be, however, required of all other groups.

ENLISTED MEN

Enlisted men recommended by Army Specialized Training Program Selection Boards for assignment for such preprofessional or professional training, at any level, must be thoroughly qualified as regards fitness and aptitude for subsequent professional training. Their scholastic ability likewise must be such that attrition in both the premedical and medical phases will be held to a minimum.

STUDENTS IN MEDICAL ADMINISTRATIVE CORPS

There are now in approved schools of medicine, dentistry and veterinary medicine approximately 22,000 students who hold commissions in the Medical Administrative Corps, A. U. S., or in the Officers Reserve Corps and who are on an inactive status for the purpose of completing their professional training with a view to appointment in the Medical, Dental or Veterinary Corps, A. U. S. The discharge of these students, at their

own request, from their commissions and their enlistment in the Enlisted Reserve Corps has been authorized.

Students so enlisted will be ordered to active duty at the end of the academic period which terminates between April 15 and June 30, 1943 or, if the academic period continues beyond the latter date, on June 30, 1943. Orders calling such enlisted men to active duty will be issued fifteen days prior to termination of the academic period or June 30, 1943, whichever is applicable. These students will be invited to submit letters of resignation for the purpose of enlistment in the Enlisted Reserve Corps.

Contracts will be requested with all approved schools effective not later than the beginning of the next academic term which ends before June 30, 1943.

ROTC STUDENTS

First and second year advanced course ROTC medical students who hold commissions in the Medical Administrative Corps, A. U. S., or in the Officers Reserve Corps and who resign their commissions and enlist in the Enlisted Reserve Corps will be called to active duty as prescribed. Those not in the Enlisted Reserve Corps may be voluntarily inducted for subsequent transfer to the Enlisted Reserve Corps and call to active duty.

ASSIGNMENT OF STUDENTS

Medical, dental and veterinary students in good standing in approved schools of medicine, dentistry and veterinary medicine, not under Army jurisdiction, if inducted under Selective Service subsequent to June 30, 1943, will be assigned with the least practicable delay to the Army Specialized Training unit at the institution in which currently matriculated.

The total number of college students pursuing approved premedical, predental and preveterinary courses is greatly in excess of the capacity of approved schools of medicine, dentistry and veter-

inary medicine. It is emphasized that these trainees are soldiers assigned for university training rather than "students in uniform".

Premedical, predental and preveterinary students in the Enlisted Reserve Corps will be called to active duty and assigned to an appropriate Specialized Training and Reassignment unit for classification and reassignment. Enlisted men recommended by selection boards at specialized training and reassignment units for continuation of their preprofessional training or for professional training will at the proper time be assigned to an appropriate Army Specialized Training Unit.

Those not recommended for such training will be assigned to an appropriate replacement training center for the completion of the required period of basic military training or, for those not recommended for any phase of Army Specialized Training to an appropriate unit or installation within the territorial limits of the service command.

INDUCTION UNDER SELECTIVE SERVICE

Premedical and predental students only, not in the Enlisted Reserve Corps, if inducted under Selective Service subsequent to the end of the academic period which terminates prior to June 30, 1943 or, if the academic period continues beyond this date, subsequent to June 30, 1943, reporting at reception centers, will, if they attain a score of 115 or better on the Army General

Classification Test, be transferred to a Medical Department Replacement Training Center if practicable or to an appropriate installation within the geographic limits of the service command for basic military training. Such men will be designated as candidates for the Army Specialized Training Program. They will there appear before the Army Specialized Training Program field selection board for selection or rejection for the Army Specialized Training Program.

Enlisted men who have completed the required preprofessional schooling and have been recommended for professional training by the Army Specialized Training Program selection board at a Specialized Training Assignment and Reclassification unit, but for whom there are no appropriate immediate vacancies in contracting schools of medicine, dentistry and veterinary medicine, will be assigned to a Medical Department Replacement Training Center and/or to other service command installations, preferably with the Medical Department, pending assignment to a suitable unit within prescribed quotas, for professional training.

The procedures for the selection of enlisted men for assignment for training in medicine, dentistry and veterinary medicine under the Army Specialized Training Program will be no less thorough and exhaustive than those now in common usage for acceptance for admission to the accredited professional schools throughout the country.

NAVY PROGRAM FOR STUDENT TRAINING

MEDICAL students who at present hold commissions as Ensigns H-V(P), USNR, have the option of remaining on inactive duty in their present status until completion of their course in medical school at their own expense, or they may resign their commission and enlist as Apprentice Seamen, U.S. Naval Reserve, and be placed on active duty with pay, uniforms and a per diem allowance to defray the cost of their subsistence. The tuition will be paid by the Navy, including the cost of books and the cost of renting microscopes or other equipment necessary in the medical courses.

ENTERING STUDENTS

Students who are now in medical school, or those who have been accepted to the next entering classes, who are Ensigns H-V(P), USNR, will continue in these schools. On satisfactory completion of the prescribed course of studies, the students will be commissioned in the Naval Reserve as Lieutenants (junior grade) MC-V(G) on an inactive duty status to complete one year of internship in a civilian hospital. Those students who desire to enter the Medical Corps of

the regular Navy and successfully pass the examination will be assigned to an internship in a naval hospital, on active duty.

If the student fails to maintain satisfactory standards on active duty in the Navy College Training Program, he may be assigned to general duty in enlisted status in the rating for which qualified. The pay of Apprentice Seamen on active duty, without dependents, is \$50 per month. Certain allowances are made for the dependents of an Apprentice Seaman on active duty contingent on the allotment by the man concerned of a portion of his pay to his dependents. The amounts of the allowances depend on the number and relationship of the dependants.

ENSIGNS

Married Ensigns H-V(P), USNR, are eligible for enrolment and participation in the Navy College Training Program. The maximum age restrictions prescribed for other Apprentice Seamen in the Navy College Training Program are not applicable to former Ensigns H-V(P).

Former Ensigns H-V(P) who enlist and who

are attending medical school on or about July 1, 1943 will be ordered to active duty at the school which they are attending at that time. Navy medical students in the Navy College Training Program will pursue an accelerated course. While on active duty in school, medical students will wear a Midshipman or Cadet type uniform with suitable distinguishing insignia.

Applications for appointment as Ensigns H-V (P), USNR, from civilian students in medical school, or those students who have been accepted for admission to the next entering class of an approved school, will not be accepted after June 1, 1943. Thereafter qualified students who are in attendance at or who have been accepted by an approved medical school will, on approval by the Bureau of Medicine and Surgery and the Bureau of Naval Personnel, be inducted as Apprentice Seamen, Class SV-12 (S), for training in the Navy College Training Program.

PREMEDICAL STUDENTS

Premedical students assigned to colleges and universities participating in the Navy College Training Program will be made up mostly from premedical students who now hold an enlisted rating in class V-1 or V-7, USNR. A small percentage of premedical students will be taken from the successful applicants who passed the test given on April 2, 1943 in all high schools and colleges in the country. Tests will be given again in November 1943 and in March 1944.

Premedical students formerly in class V-1 and V-7, on active duty in the Navy College Training Program, who are not selected for medical training by the Navy but who are acceptable to an approved medical school, may submit request to the Bureau of Naval Personnel for discharge. Each such request will be considered on its own merits. If not acceptable to an approved medical school, such men will be considered candidates for other officer candidates training in which qualified.

The course of studies for premedical students entering the first term on July 1, 1943 will run for five terms of sixteen weeks each. It is proposed to screen premedical students after the first year of their studies. The successful students will continue their course until completion; the failures will be allowed to continue the term they are in at the time of failure and then be assigned other training. It is the intention of the Navy Department that Naval trainees, pursuing a premedical course and later assigned to medical schools, be acceptable to the schools to which ordered.

Chardon—Characterizing the war as a fight of the law against the claw, Dr. Lucy Stone Hertzog was guest speaker at a meeting of the Progress Club.

Students Can Get Commission At Time of Graduation

The Secretary of War under date of May 13, 1943, issued a directive establishing the policy that graduates of approved medical schools may be appointed first lieutenants, Army Medical Corps, upon the completion of their academic training although they will not be called to active duty until completion of their period of internship.

Death Rate Decreases, Birth Rate Increases, 1942 Reports Show

Provisional birth, death, and infant mortality rates for 1942 have been issued by the Bureau of the Census.

The crude death rate and the infant death rate for the United States for 1942 were the lowest on record for the registration States. The provisional crude death rate (based on returns from 41 States and the District of Columbia) was 10.3 per 1000 population, as compared with 10.5 in 1941, the previous low, 10.7 in 1940 and 10.6 in both 1939 and 1938. The provisional infant death rate (based on returns from 39 States and the District of Columbia) was 40.8 per 1000 live births, as compared with 45.3 (final figures) in 1941, 47.0 in 1940, 48.0 in 1939, 51.0 in 1938, and 99.9 in 1915.

The crude birth rate (based on reports from 41 States and the District of Columbia) in 1942 was 20.7 per 1000 estimated population, as compared with 18.7 for 1941, 17.9 for 1940, and 17.3 in 1939. The birth rate for 1942 is the highest recorded for the United States since 1926, in which year the rate was the same, 20.7. The lowest rate of record for the birth registration area of the United States, established in 1915, is 16.6, in 1933.

During the first World War, 1914-18, the birth rate declined sharply in most of the belligerent countries. So far, declines of similar magnitude have not been reported in the countries at war, although smaller decreases have occurred. The high birth rate for the United States during 1942 continued during January, 1943, the rate for that month for 41 States and the District of Columbia being 22.1 per 1000 estimated population, compared with 18.6 for the corresponding month of 1942—an increase of 18.8 per cent.

Toledo—Dr. C. W. Spears, athletic director and football coach at Toledo University, has been appointed to a similar position at the University of Maryland.

New Method of Handling the Sale of Medical Liquor on Physician's Prescription Announced by Liquor Director

CONCURRENTLY with the re-opening of the State Liquor Stores on June 1 under the rationing of sales to the public, a new method of handling the sale of liquor for medicinal purposes becomes effective.

It is anticipated that the amount which may be purchased by any holder of a liquor ration book will be sufficient to meet the medicinal needs of many persons for whom liquor will be prescribed by the attending physician. However, a plan of selling liquor for medicinal purposes has been worked out by State Liquor Director Don Fisher to provide a means whereby an additional amount will be provided for bona fide cases where the uniform allowance under the rationing program is found insufficient. The additional amount will not be issued unless the patient has exhausted his or her current allotment under the uniform rationing program.

REGULATIONS DRAFTED

The plan and regulations announced by Mr. Fisher follow:

1. A person needing liquor for medicinal purposes should obtain a liquor ration book in the regular manner and should use it to purchase liquor, as required from the state liquor store, or authorized agency, in the zone in which he or she resides.

2. In event such person requires more medicinal liquor than can be purchased under the maximum per capita allowance of the liquor rationing program, he or she (or a bona fide, properly identified agent if the person is physically incapacitated) may purchase a specified additional amount upon the presentation of a lawfully issued prescription by a duly licensed Ohio physician and bearing the stamp of approval of the State Liquor Director.

3. Such a prescription should be mailed by the physician or the patient to the State Liquor Director, 33 North Third Street, Columbus, Ohio. If the filling of the prescription is approved by the director, it will be so marked and mailed to the patient.

4. Each prescription for medicinal liquor shall carry the following information:

- a. Name, address and age of the person for whom the liquor is prescribed.
- b. Amount of liquor prescribed for a period not to exceed one month.
- c. Kind of liquor prescribed. (Sale would be subject to stock available).
- d. Statement by the physician that the person named therein is as the present time

under his professional care and is in need of medicinal liquor to the amount prescribed because of a painful or incurable disease, debilitating illness, or infirmities of age.

e. Name and address of the agent who will purchase the liquor in event the patient is physically incapacitated.

f. Signature and address of the prescribing physician.

5. The purchase of medicinal liquor on a physician's prescription must be made at the state liquor store or authorized agency in the zone in which the patient resides.

6. Amounts prescribed shall be for a period not to exceed one month.

7. In doubtful cases, the State Liquor Director reserves the right to request the physician, or the patient, to submit information in addition to that contained on the prescription blank.

COOPERATION OF PHYSICIANS URGED

It is the hope of Director Fisher that all physicians will cooperate with the department in efforts to make the new plan operate efficiently and for the benefit of those who actually require liquor for medicinal purposes.

The Journal suggests to physicians that they not only minimize the prescribing of medicinal liquor but likewise minimize the amounts when prescribing is necessary. If a patient can get along on the regular per capita monthly allowance under the rationing program, additional amounts should not be prescribed. On the other hand, when a physician is of the opinion that a patient's condition would be jeopardized unless an additional amount of medicinal liquor is made available to him or her, he should not hesitate to issue a prescription and submit it to the State Liquor Director.

Special attention is called to the regulation stating that "amounts prescribed shall be for a period not to exceed one month". This means that prescriptions will have to be issued monthly in prolonged and continuing cases. It is suggested that new prescriptions be submitted to Director Fisher for approval about four or five days prior to the date on which the old prescription will expire in order to expedite the handling of blanks and approval at the Columbus office.

ONLY BONA FIDE CASES ELIGIBLE

To some the regulations issued by Director Fisher may seem unusually stringent but not to those who are informed about abuses and racketeering which occurred recently in a number of cities when state liquor stores were ordered

to sell liquor only on a physician's prescription because of the shortage of liquor for general sale.

Investigations made by the liquor department reveal that in several communities bootleggers and others purchased liquor on prescriptions to which the signatures of physicians now serving with the armed forces in Australia, North Africa, and elsewhere, had been forged. One or two instances are cited where the signatures of deceased physicians had been forged to blanks. In one city, a whisky ring had prescriptions blanks printed and placed in the hands of a few physicians who, unfortunately, were not adverse to taking part in the racket. Obvious examples of the issuance of prescriptions by physicians for the accommodation of their friends (who did not need it for medicinal purposes) were uncovered.

Physicians who practiced during the "Prohibition Era" will recall the terrific pressure which was put on all physicians to become "society bootleggers". No physician who takes pride in his profession or values his personal reputation will object to reasonable regulations, such as those issued by Director Fisher, which protect the bona fide patient and physician but at the same time will minimize abuses and illegal practices.

Sherwood To Leave Welfare Post for Position on Parole Board

Charles L. Sherwood, Fremont, state welfare director since January, 1939, has been appointed a member of the Ohio Pardon and Parole Division, effective June 15. He will succeed former Judge Harrison W. Jewell, Delaware, whose term expired March 31. Sherwood's appointment is for the remainder of the six-year term expiring March 31, 1949.

Assistant director of the department in 1929 and 1930, Sherwood formerly was secretary of the Ohio Council of Public Welfare, associate director of the Ohio Institute for Governmental Research and executive secretary of the Ohio Mental Hygiene Association.

Western Reserve Centenary, Oct. 27

The One Hundredth Anniversary of the founding of Western Reserve University School of Medicine, will be celebrated at Cleveland, October 27, with a special program. Speakers will include: Dr. George H. Whipple, Rochester, N.Y., "Blood Plasma Proteins: Their Production, Function, Substitution and Replacement"; Dr. Alan Gregg, New York, "The Matrix of Medicine"; Dr. Reginald Fritz, Boston, "The Crimson Thread."

Postgraduate Courses for Medical Officers Being Arranged

In order to provide medical officers of the Army, Navy and Public Health Service with opportunities to keep abreast of new developments in treatment and prevention of disease and disabilities, "Wartime Graduate Medical Meetings" are being organized under the auspices of the American Medical Association, American College of Physicians and American College of Surgeons and with the sanction of the surgeon generals of the three services.

A committee of three—representing the three organizations—has been appointed to administer the program. They are Dr. Edward L. Bortz, Philadelphia, chairman; Dr. William B. Breed, Boston, and Dr. Alfred Blalock, Baltimore. The country has been divided into 24 sections and key committees of three men appointed to head up the activities in the various sections.

Ohio and Pennsylvania comprise Section No. 8 and the section committee is composed of Dr. Charles A. Doan, Columbus, chairman (Dr. Doan is chairman of the Committee on Scientific Work of the Ohio State Medical Association and head of the Medical Department, Ohio State University, College of Medicine); Dr. George R. Harris, Pittsburgh, and Dr. Fred M. Douglass, Toledo.

A group of qualified authorities has been selected to act as consultants in the special fields and assist the section committees.

The section committees will be responsible for formulating programs to be presented at camps and military hospitals; for the selection of speakers; and for the handling of numerous details in connection with the meetings. The programs will consist of ward walks, clinics, practical demonstrations, moving pictures, lectures and conferences. The committees will work closely with the commanding officers of the various army corps commands and naval districts and will cooperate with groups which already are sponsoring meetings of this kind for army and navy installations in their immediate vicinity.

Training in Virus Diseases

The National Foundation for Infantile Paralysis and the University of Michigan have joined in a long-range program for the training of doctors, public health workers and laboratory technicians on infantile paralysis and other virus diseases.

To aid in the necessary planning and execution of such a project, the National Foundation has made a new three-year grant, totaling \$120,000, to the University, in addition to three previous grants, totaling \$110,000.

Plans for Emergency Medical Services in Event of Major Disasters at Industrial Plants Issued by the OCD

EVERY plant medical department should prepare a "disaster operations plan" to provide adequate medical service in case of a plant catastrophe involving large numbers of casualties. This is the advice presented in a new bulletin, "Emergency Medical Service for Industrial Plants," issued by the Medical Division of the Office of Civilian Defense.

The War and Navy Departments have urged that plants for which they are responsible plan to use the facilities and services of the Emergency Medical Service organized by Civilian Defense authorities. The Medical Division has in turn urged that local Chiefs of Emergency Medical Service assist plant medical departments by placing the community medical facilities at their disposal in the event of a major emergency, regardless of its cause.

NECESSARY FIRST AID

Pointing out that plant medical departments are not ordinarily staffed or equipped to provide medical service for the large number of casualties which may occur in a major disaster, the bulletin outlines arrangements which should be made to assure adequate medical care at such times.

The disaster operations plan should provide for necessary first aid care at the site of the incident, for adequate ambulance service, and for hospitalization of the seriously injured, the bulletin advises.

Provision must first be made for Casualty Stations. Several sites should be selected, in order that alternative locations may be used in case those of first choice are destroyed or rendered unserviceable. An additional site outside the plant should be selected for use in the event of extensive damage to the plant, such as might occur in a bombing or explosion.

IDENTIFICATION AND RECORDS

The importance of identification and records is especially emphasized in the bulletin.

"In any disaster confusion will be inevitable," it is pointed out. "It will be difficult, without adequate records, to identify the seriously injured and the dead and to determine the number and names of the missing. The uninjured as well as the injured should be accounted for. A record should be made of every person who leaves the plant. The record should indicate the places to which the injured have been taken."

In a consideration of transportation, the bulletin recommends that arrangements be made with the local Chief of Emergency Medical Serv-

ice to insure that ambulances under his direction will be made available to the plant should a disaster involve the entire community. Similarly, any ambulance facilities owned by the plant should be made available to the local Chief if they are not required at the plant.

PLANS FOR HOSPITALIZATION

Present plans for the hospitalization of industrial accident victims are likely to be grossly inadequate in the event of a major plant catastrophe, the bulletin declares. Large numbers of patients should not be sent to one hospital, if other hospitals are available. To provide quick and efficient service to injured persons, casualties should be distributed among various hospitals. Arrangements must be made with the local Chief of Emergency Medical Service for the admission of casualties to community hospitals, all of which will be under his supervision during a major emergency.

A prerequisite to the entire plan of mutual aid between a plant and a community is a definite understanding that members of the Emergency Medical Service will be admitted promptly to a plant in an emergency. To assist plant managers to carry out their duty in keeping unauthorized persons out of war production plants and to facilitate the admission of physicians when they are needed, the Service Commands of the Army are conducting investigations of the key personnel of the Emergency Medical Service. Personnel investigated and approved by the Service Command, will receive identification cards from the Office of Civilian Defense.

The bulletin sketches the organization and operation of protective services in a community, and the over-all protective services recommended for industrial plants. It also outlines the program of federal compensation for injuries to Civilian Defense workers and explains how this plan applies to industrial workers. A bibliography of pertinent material is included.

Pt. Clinton—Staff officers of Magruder Hospital are: Dr. C. C. Sheldon, Pt. Clinton, chief; Dr. George Boone, Oak Harbor, assistant chief, and Dr. Leroy Belt, Marblehead, secretary-treasurer.

Sidney—War public works projects recently receiving presidential approval include \$66,830 for construction and equipping of a 20-bed addition to the Wilson Memorial Hospital.

Washington C.H.—Dr. W. G. Maag, Jeffersonville is the new health commissioner of Fayette County.

Experiences of U. S. Naval Mobile Hospital Unit No. 4 In Southwest Pacific Recorded by Dr. Gardner, Cleveland

THE following article appeared originally in the April issue of *The Bulletin of the Cleveland Academy of Medicine*. In it Dr. W. James Gardner, Cleveland, relates his experiences in the Southwest Pacific as Lieutenant Commander, M.C., U.S.N.R., attached to U.S. Naval Mobile Hospital Unit No. 110. Dr. Gardner, as he points out at the close of the article, has returned to Cleveland and is now on an inactive status.

* * *

By W. JAMES GARDNER, LT. COMDR., M.C., U.S.N.R., Cleveland, Ohio

ON March 2, 1942, Naval Medical Specialist Unit No. 110, which had been organized at the Cleveland Clinic, reported for active duty at the Naval Medical Supply Depot, Brooklyn, N. Y. in connection with the establishment of Naval Mobile Hospital No. 4. The Unit at that time consisted of the following Clevelanders who had been commissioned in the U. S. Naval Reserve some months previously.

Ophthalmologist and Otolaryngologist — Lt. Comdr. J. R. Kennedy—Cleveland Clinic

Roentgenologist—Lt. Comdr. J. C. Root—Cleveland Clinic

Internist—Lt. Comdr. A. C. Ernstene—Cleveland Clinic

Neurological Surgeon—Lt. Comdr. W. James Gardner—Cleveland Clinic

Urologist—Lt. Comdr. W. J. Engel—Cleveland Clinic

Dentist—Lt. Comdr. D. H. Nichols — Rose Building

Surgeon — Lt. George Crile, Jr. — Cleveland Clinic

Psychiatrist—Lt. Guy H. Williams, Jr.—Carnegie Medical Bldg.

Clinical Pathologist—Lt. (j.g.) E. J. Ryan—Cleveland Clinic

At the Medical Supply Depot we met our Commanding Officer, Captain John H. Robbins, M.C., U.S.N. Captain Robbins briefly outlined the project which lay before us. Naval Mobile Hospital No. 4 was to be a three to six-hundred-bed hospital complete in all respects. The hospital was to be assembled in New York and transported to its ultimate destination overseas. On arrival overseas it was to be set up by the personnel in the shortest possible time.

The personnel was to consist of about twenty medical and dental officers, a supply officer, a civil engineer, warrant officers, chief petty officers, and 180 enlisted men, most of whom were hospital corpsmen. The material was to include 70 prefabricated metal buildings together with equipment and supplies for the following departments: administration, commissary, fire fighting,

hospital and nursing, laundry, maintenance, power and lighting, refrigeration, sanitation, transportation, water supply and purification, and special departments such as mortuary, dentistry, barber, laboratory, operating rooms, pharmacy, post office, physiotherapy, and X-ray. The estimated weight of the material was 1200 tons.

Tedious weeks ensued during which the material gradually accumulated on the pier. The requisitions were checked and rechecked to make sure that no important item had been overlooked, had gone astray, or had been damaged in transit. We did not know whether we would be sent to the Arctic or to some island in the South Seas, and provision had to be made for every emergency. This, however, was not such a difficult job, thanks to the careful planning of these Mobile Hospitals by the Bureau of Medicine and Surgery. During this period our complement was completed by the addition of the following officers, several of whom had received postgraduate training in Cleveland:

Lt. Hays R. Yandell, M.C., U.S.N.R.

Lt. Gordon Sinclair, M.C., U.S.N.R.

Lt. Ray Andrews, M.C., U.S.N.R.

Lt. Ralph Zupanek, M.C., U.S.N.R.

Lt. (j.g.) George Berry, D.C., U.S.N.R.

Lt. Chas. Bingham, M.C., U.S.N.R.

Lt. Comdr. Dennis O'Connor, M.C., U.S.N.R.

Lt. (j.g.) Royston Miller, M.C., U.S.N.R.

Lt. Burnell Eckart, M.C., U.S.N.R.

Lt. Comdr. Russell H. Blood, M.C., U.S.N.R.

Lt. (j.g.) Fred Sanborn, M.C., U.S.N.R.

In May Captain Robbins and I received orders temporarily detaching us from the rest of the outfit to proceed to the place selected for the hospital. There we were to choose a suitable site and make preliminary arrangements so that the establishment of the hospital could be expedited.

The trip across the Pacific in a large transport was speedy and uneventful. As we crossed the equator, several other officers and I were duly initiated into the Grand Order of Shellbacks. Ecchymoses on our gluteal regions bore testimony

to that fact for some weeks afterwards. We crossed the International Date Line and entered the harbor of Wellington, New Zealand, on Sunday, May 31.

Even experienced globe-trotters find New Zealand extremely interesting. It is a long, narrow country about 1000 miles long between 34° and 48° latitude south. (On this side of the world Charlotte, N. C. is 34° and St. Johns, Newfoundland is 48° north latitude.) It is divided into the North, South, and Stuart Islands. In area, it equals the total of Pennsylvania, Virginia, Maryland, Delaware, and Rhode Island, and its population of 1,641,000 would just about go into the city of Detroit. Auckland in the north is the largest city with a population of 223,000. Wellington at the south end of the North Island is the capitol and has a population of 163,000. Both cities have excellent harbors. Hills and mountains form a spine down the country to make it a good place for climbing, skiing, and hiking. The mountains are at their highest on the South Island and are called the Southern Alps. The top peak, Mount Cook, rises to 12,349 ft. There are many interesting volcanoes in the North Island, one of which, called Ngaruawahia, is active. The thermal region near Rotorua can show you all sorts of wonders: geysers, boiling mud, hot springs, and sulfur baths. Westland, on the South Island, has magnificent forests growing to the edge of great glaciers. Further south we come to the Sounds region, where there is a remarkable combination of mountains, precipice, sea, and forest.

The natives of New Zealand are the Maori (pronounced Mowry). They came to New Zealand about 200 years before Columbus discovered America, probably from near Tahiti. Their appearance indicates clearly that they are Polynesian, although in some of them there is a definite mixture of a Melanesian strain. Tasman, a Dutchman, was the first white man to discover New Zealand. This was in 1642. The real settlement of the island by the white man, however, did not start until about 1840. Most of the settlers were English, Scotch, or Irish, so that at the present time about 98 per cent of the white population is of British descent. How British the population is, is indicated by the fact that when a New Zealander says he is going to send a letter "home", he means to Great Britain. The Maori population of the island is about 90,000; and as a rule the white man and the Maori treat each other with mutual respect. The white man has accepted the ancient Maori names for rivers, mountains, and localities, and there are several Maori who are members of the House of Parliament.

The geology, flora, and fauna of New Zealand are unique. Though a small land mass, it is one

of the most ancient. What interested me most about the country was that originally there were no mammals there whatsoever, merely birds, fish, and a type of lizard. Even today there is not a snake in the whole country. Because there were no animals, many of the species of birds have lost the ability to fly. Originally, there were some 36 varieties of flightless birds in New Zealand. The largest bird of which we have any knowledge once existed there. It was a flightless bird called the moa, which sometimes attained a height of 17 ft. When the white man came, he found that, in addition to the bird life, the islands were overrun with rats. The rats, however, were not indigenous as there are no fossil specimens of them. They probably landed from whaling vessels, or perhaps were brought as a source of food by the Maori.

The climate of New Zealand is quite equable, and at Wellington in a latitude corresponding to that of Cleveland it seldom freezes in the winter, and there is no snow except in the mountains. The rainfall is quite heavy, and the whole country is green with vegetation. Originally, there were very few deciduous trees in New Zealand, the foliage for the most part being subtropical in character. The most characteristic tree in the landscape is the so-called fern tree or punga, which is really a fern but grows more like a palm tree.

When the white man came, he found the fresh water fishing not at all to his liking. There were innumerable small species of fish, but nothing comparable to the trout in size or gameness. Therefore, one of his first projects was to form acclimatization societies for the introduction of trout and salmon. This was accomplished so successfully that within a very few years of planting the fry, rainbow trout were caught weighing up to 30 pounds. Even today, New Zealand is probably unsurpassed both for freshwater and for saltwater fishing.

The main industries of the country are dairy farming and sheep farming. The sheep population of New Zealand is estimated at 31,000,000, and the cattle population at 4,500,000. The country exports wool, beef, mutton, almost as much butter as Denmark used to, and more cheese than any other country in the world.

For its size New Zealand has made a tremendous contribution to the war effort. One-tenth of the whole population of New Zealand is in the armed forces. To appreciate what this means, imagine the United States Army and Navy with 13 million men with an additional part-time army of 8 million men to correspond to the New Zealand home guard.

When the white man came, he introduced rabbits and hares as well as domesticated animals, and then weasels and ferrets to keep down the

rabbits. These are now pests in their turn, and have destroyed many of the flightless birds. The white man also introduced pigs, goats, and deer, which are so numerous that there is no closed season on them. As a matter of fact, one can shoot any wild animal in New Zealand at any time of the year. The only hunting season is for "feathered game". In addition to their native gray duck, they have introduced the mallard, Canada goose, and the Australian black swan, as well as California quail and ring-necked pheasant. Various types of penguin come to New Zealand to nest in the winter month of August.

In New Zealand traffic keeps to the left, and it behooves the American to bear this in mind when he attempts to cross the street. Money is in pounds, shillings, and pence, the New Zealand pound being worth approximately \$3.30.

Though rather reserved and undemonstrative as judged by American standards, the New Zealander is genuinely cordial and hospitable, and welcomes every opportunity to entertain Americans in his home. In the words of the United States Minister, Patrick Hurley, "New Zealanders and Americans are very similar except for a slight difference of accent and a whale of a difference in the way they make coffee. They both make it from coffee beans and serve it in cups, but there the similarity ceases."

The Wellingtonians often refer affectionately to their fair city as "windy Wellington on the shivery isles". Windy it proved to be with the cold, wet southerlies whistling through Cooks Strait. We supposed that the adjective "shivery" referred to the temperature until we experienced our first earthquake on June 24th. We were on the fifth floor of the old Midland Hotel at 11:20 p.m. when it hit. It didn't seem possible that the building could remain standing. Captain Robbins and I haven't yet settled who was the more scared. Fortunately, on account of the black-out and war restrictions, there were very few people on the streets, and no one was injured by the falling debris.

Auckland was finally selected as the best site for our hospital since it was 400 miles closer to the area of intended operations and had an excellent harbor. The material for the hospital arrived in Wellington aboard a freighter on July 7th, and the personnel arrived on July 11th. Carl Ernstene and I were left in Wellington in charge of a temporary Marine Hospital while the rest of the outfit moved on north to Auckland.

The site selected for the hospital was a hockey field, several acres in extent, and about three miles from the heart of the city. Work started on July 20th. Each medical officer was put in charge of a gang of enlisted men and assigned a particular job. One gang would dig holes for

footings, another would set the footings, and others would lay the floor beams, the side panels, the ceilings, the roofs, the floors, the wall board, the windows, doors, etc. Municipal water, sewage, and electric power were available which greatly facilitated the job, so when Ernstene and I rejoined the outfit on August 11th, the greater portion of the construction was completed. It was a truly remarkable accomplishment, done largely by untrained hands and for the most part in rainy, inclement weather.

We had with us the material for 70 one-story, sheet-metal buildings measuring 20 by 48 feet. However, since we had a good level building site, it was decided to make the wards 20 by 96 feet by joining two of the buildings end-to-end, thus each ward could accommodate 30 beds. Each two wards were then joined at the center by a passageway, forming an "H". A latrine or "head", as it is called in the Navy, was placed across each passageway. Our original plans called for chemical toilets, but since water, sewage and toilet fixtures were available, a contract was let, and the "heads" were constructed by New Zealand labor with New Zealand materials. In two of the ward buildings at opposite ends of the group, operating rooms were constructed. One building was set aside for the X-ray department and an assembly room, and another building housed the dental department, pharmacy, and laboratory. In addition, there were administration buildings, three general storehouses, refrigeration building, officers' quarters, ward rooms, petty officers' quarters, and barracks for the men. There were ward accommodations for 440 patients.

Just one month from the day that work was started on the hospital, we had the wards, galley, heads, operating rooms, mess halls, and X-ray department ready to function. On that day we received 366 casualties by hospital ship from the landing operations in the Solomons. Most of these were shrapnel wounds with a high percentage of compound fractures and quite a few burns. Within two months of the opening of the hospital we had received over 1200 casualties from the theater of operations. Of this group we lost one patient, a bad burn case, who died within 24 hours of admission.

Because of the need for beds, contracts were let for additional wards to be built of New Zealand materials and by local labor so as to increase the bed capacity to 1000. This work was almost completed by the end of October, and the complement of medical officers was doubled.

On October 29th I was ordered to San Francisco with a load of casualties destined for the Mare Island Hospital. This trip was accomplished without incident, and I was subsequently transferred to inactive duty. Though several of

the men contracted influenza during the winter months of July and August, they were all in excellent health and spirits when I left them.

The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

Activities of the County Woman's Auxiliaries

The Woman's Auxiliary in Cincinnati has had a very active and successful year with the following projects:

A large number of books were donated by the members and sent to an army camp in Alaska.

We gave \$90.00 to Juanita Gregory to pay for her first year's training at Christ Hospital.

Twenty of our group went together to give blood four different times during this year.

We have recruited nurses aides at each meeting.

War bonds and stamps were sold at each meeting and our committee was divided into Red, White, and Blue teams; the Captain who sold the most received a silver cup at the May meeting. We are working with "Women at War" and have sold \$50,000 this year.

We have sold 45 yearly subscriptions to *Hygeia* this year.

We filled 225 cellophane stockings with fruit, nuts, and gum for the soldiers in the hospital at Fort Thomas for Christmas. We filled over a hundred boxes with candy for one building of the Hamilton County Home for Christmas trays.

Weed eradication by education of the public had our support. A new city ordinance will back up this work in the eradication of ragweed and poison ivy.

The new Rheumatic Heart Clinic at the Health Center is being manned by our Auxiliary.

The activities of various public agencies have been reviewed for us at each meeting by the Public Relations Committee and telegrams and letters were sent to state senators and representatives regarding pending legislation.

Together with Dr. Leon Schiff, local Chairman of the Medical and Surgical Relief Committee of America, we have conducted a campaign for 50 portable medical kits for the U.S. Navy Coast Guard Patrol Boats and Sub Chasers. Each kit costs \$25 and a great many have been given. The rest are being raised by small contributions and materials donated by people throughout the city. This has aroused the interest of Cincinnatians in general and the response has been splendid. Each kit bears the

name plate of the donor. They are soon to be sent out in the small boats where they are greatly needed. Besides essential drugs and surgical instruments and dressings, these kits contain fishing equipment to be used in case of disaster.

We have 152 active members and 50 service wives. Our average attendance at our monthly meetings has been 80. Most of our members are working at the Red Cross and various hospitals.

Our outstanding speakers this year were: Dr. Martin Fischer, whose subject was "Why We Grow Old"; Dr. Max Zinner, "Visit to Peiping"; Dr. Carl Wilzbach, "Health Needs of our Community"; and Dr. John Romano, "Mental Health in War".

We had our first evening party in March—a dinner dance at the Cincinnati Country Club, which was greatly enjoyed.

Our last meeting for the year was on May 10—a luncheon meeting at the Cincinnati Country Club. Letters were read from some of our "service" wives which were extremely interesting.—Mrs. Arthur Beyer, President.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Mary Emma Haines, Blanchester, and Dr. Phillip Eckert, Toledo; Miss Mini Younger and Dr. Jack R. Henry, Columbus; Miss Jane Hope Crawford, Alliance, and Dr. Merrill Speelman, Columbus; 2nd Lt. Eleanor Whan, North Lima, Army Nurses Corps, and 1st Lt. Louis G. Ralston, Youngstown; Miss Elizabeth Stewart Stevens, Sterling, Illinois, and Major M. David Burnstine, Columbus; Miss Janet Foster, Columbus, and Dr. Russell Paul Dreyer, Parma Heights; Miss Lorraine Klein, Chicago, Illinois, and Dr. Theron Lingard Hopple, Toledo; Miss Mary Jane Parfitt, Newport, R.I., and Dr. Fred H. Hruby, Jr., Cleveland Heights; Miss Louise Dinger, Canton, and Dr. Lawson W. Stoneburner, Cincinnati; Miss Mary Wycoff, Cambridge, and Dr. Earl Zurbrugg, Zanesville.

Cincinnati—Dr. Bernice L. G. Wedum has been appointed clinician of the Max Stern Heart Station by the Cincinnati Heart Council.

Stubenville—Dr. S. J. Heeley, who practiced in Barton, Belmont County, has been appointed health commissioner of Jefferson County.

Columbus—"Eating in War Time," was the topic discussed by Dr. Jonathan Forman at a meeting of the Rotary Club.

Chillicothe—Dr. B. L. Chipley, State Park, South Carolina, has been appointed superintendent of the Mt. Logan Tuberculosis Sanatorium, succeeding Dr. L. H. Senteff, resigned.

WAR NOTES

When Bataan and Corregidor fell to the Japs, Capt. Julien M. Goodman, Cleveland, was among the American troops located there. No word concerning him was received by relatives and friends until May 15 when Mrs. Julie E. Goodman, Cleveland, Capt. Goodman's mother, received a communication from Adjutant General Ulio, U.S. Army, reading as follows: "Report just received through the International Red Cross states that your son, Capt. Julien M. Goodman, is a prisoner of the Japanese Government; letter of information follows from Provost Marshall General". Mrs. Goodman had written several times to the International Red Cross at Geneva, Switzerland, seeking information about Capt. Goodman.

* * *

Lt. Otto H. Salsbery, formerly of Cincinnati, has been slightly wounded while on active duty in North Africa, according to information received by his wife. He was with an armored force.

* * *

The Silver Star has been awarded posthumously by the Navy to Lt. Pattison Fulton, formerly of Cincinnati, who was killed in action at Guadalcanal. (See page 376, April, 1943, issue of *The Journal*.) Dr. Fulton who died of wounds on December 1, also was awarded the Purple Heart Medal posthumously. The Silver Star citation read in part as follows: "During the offensive operations in which the Marines participated, Lt. Fulton with cool courage and utter disregard for his own personal safety, conducted his work of treatment and evacuation of the wounded in the face of heavy artillery fire. His conscientious devotion to duty, maintained at great risk in the face of grave danger, was in keeping with the highest traditions of the United States Naval Service."

* * *

The following excerpt from a letter received in Canton from Capt. John E. Dougherty of that city gives a brief but graphic picture of what the boys are up against in New Guinea:

"As you all know, the Paxman campaign was brought to a successful close. It was a wonderful job, accomplished under the most adverse conditions. Our squadron and group played a major role in the air battles and missions. The 32nd Infantry Division along with the Aussies were magnificent. They fought under the most arduous and difficult conditions in jungles and swamps, fighting typhus, dysentery, dengue and

malaria as well as the enemy. I saw a number of them when they were evacuated here to the hospital. The medical cases were bearded, grimy, covered with dirt and mud, their faces drawn, lined and strained, and their eyes sunken and bright with fever—it was remarkable to watch the change which a few days good hospital care wrought. Rested, bathed, shaved and fed, their spirits rose and they were again talking and joking. The surgical casualties, many very seriously wounded, lay quietly on their litters, uncomplaining and stoic. They, too, showed the most marked improvement with a few days care. The fact that there were nurses to care for them improved their morale greatly. During the big rush, these nurses and the enlisted and professional staff of the hospital worked hours on end without rest. They did a swell job, too."

* * *

Two Dayton physicians, Dr. Harry R. Huston and Dr. Marion W. Coleman, have been promoted to the rank of commander, U. S. Navy Medical Corps Reserve. They are members of the Dayton Naval Specialist Unit on a secret mission.

* * *

Ernie Pyle, the roving reporter who has been doing such a swell job reporting the doings in North Africa, pays a glowing tribute to the medical officers working with American troops on the battlefields. In an article published in the *Columbus Citizen*, Ernie said:

"I hope somebody in this war writes a book about the medics at the front. I don't mean the hospitals so much as the units that actually are attached to troops and work on the battlefields under fire.

"They are a noble breed. They and the telephone linemen deserve more praise than I have words for. Their job is deadly, and it never ends. Just in one battalion several of the battlefield medics have been killed, and a number decorated.

"But noble as it is, it seems to me—and to the doctors themselves—that our battlefield medical system isn't all it should be. There aren't enough stretcher bearers in an emergency, and in a recent battle at which I was present some of our wounded lay out as long as 20 hours before being brought in.

"The work of the medics comes in peaks. If they had enough stretcher bearers for all emergencies there would be thousands of men sitting around most of the time with nothing to do. Yet when an emergency does come and there are not enough, it's an awful thing.

"Wounded men have a rough time of it in this rocky, hilly country of Northern Tunisia. It is hard enough to walk when you aren't carrying anything, but when two or four men are lugging 200 pounds on a stretcher it is almost impossible to keep on their feet. I have seen litter bearers struggling down a rocky hillside with their heavy burden when one of them would slip or stumble on a rock and fall down, and the whole litter would go down, giving the wounded man a bad shaking up.

"Litter bearers sometimes have to carry wounded men five miles or more over this rugged country. A bearer is just about done in by the time he does that, yet in battle he has to start right back again. And somehow, even though its gets to be just a miserably tough job, I've noticed they manage to keep their sympathetic feeling for the wounded.

"We've heard stories about the Germans shooting up ambulances and bombing hospitals, and I personally know of instances those stories are true. But there also are stories of just the opposite nature. Many of our officers tell me the Germans have fought a pretty clean war in Tunisia. They do have scores of crafty, brutal little tricks that we don't have, but as for their observance of the broader ethics of war, our side has no complaint.

"One battalion surgeon told me of running his ambulance out onto a battlefield under heavy artillery fire—whereupon the Germans stopped shelling and stayed stopped while he evacuated the dead and wounded for eight hours.

"I've heard other stories where our ambulances got past German machine gun nests without knowing it until the Germans came out and stopped them and, seeing they had wounded, waved them on. And so far as our doctors know, the German doctors give our captured wounded good medical care—as we do theirs also, of course."

* * *

"It's always interesting to read the War Notes, especially about Ohio doctors", writes Maj. Joseph B. Edelstein, formerly of Toledo, from "somewhere in England". Dr. Edelstein, who recently received his promotion, says the only Toledoans he has seen in England so far are Dr. Czarnecki (Maj. Casimir Czarnecki) and Dr. Spencer (Lt. Col. Newton C. Spencer).

* * *

Rambling notes on Stark County army medicals—Dr. Ralph D. Bolton is now a Major, stationed at the Army Medical School, Washington. . . . Two silver bars now adorn the shoulders of Dr. Maurice Greenberger, A.P.O. 254, Postmaster, Los Angeles. . . . Dr. Reginald Dowling, stationed at Temple, Texas, has been promoted to the rank of major. . . . Maj. Les-

lie Lawrence was in Canton for a brief visit after almost a year in Hawaii. . . . Maj. K. E. Liber has been transferred to the orthopedic service of a new hospital at Greensboro, N.C.

* * *

According to the *Stars and Stripes*, daily newspaper of the American armed forces, one of those who helped work out plans for the use of air ambulances on the African front was Lt. Col. Herbert B. Wright, Cleveland surgeon, and a pilot in his own right. Such ambulances are equipped with 18 litters and necessary material for attending the wounded until the plane reaches its destination. Occasionally a medical officer is assigned to a plane carrying severely wounded.

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Capt. R. R. Bartunek, formerly resident at St. Alexis Hospital, Cleveland, is with the 69th Medical Regiment, Camp Maxey, Texas. He is a son of State Senator Emil A. Bartunek, Cleveland, member of the Senate Committee on Public Health.

* * *

According to a news dispatch from Washington, Dr. Margaret D. Craighill, dean of the Women's Medical College of Philadelphia, was commissioned a major on May 10, the first woman commissioned in the Army Medical Corps. She was assigned to the division of preventive medicine in the office of the surgeon-general, and will specialize in preventive medicine in the Women's Army Auxiliary Corps.

* * *

Previously stationed at Jefferson Barracks, Mo., Capt. Carl D. Marsh, Springfield, was recently transferred to the Lincoln Air Base, Lincoln, Nebr., as chief of the Allergy Clinic.

* * *

Some sidelights on Toledo physicians in the services: Maj. H. B. Burstein is with the 309th Medical Battalion, Camp Howze, Texas. . . U. S. Naval Training Center, Bloomington, Ind., is the station of Lt. H. C. Weller. . . Lt. Kenneth Corpe is at Station Hospital, San Antonio, Texas. . . Address of Lt. R. J. English is 701 E. Jefferson, Hugo, Okla. . . Lt. A. J. Extejt is with the Airborne Division, A.P.O. 469, Fort Bragg, N. C. . . Capt. J. M. Hertzberg is with the 315 Med. Bat., Co. D., Shreveport, La. . . Stationed at Valparaíso, Ind., Capt. Bert Seligman is with the 1503 Service Unit, Dodge Telegraph and Radio Institute. . . It's now Lt. Col., R. J. Borer, assistant chief of medical service, Billings General Hospital, Indianapolis. . . Stationed somewhere in the Southwest Pacific, Bernard Crow has been promoted to captain. . . Don Effler is wearing two silver bars somewhere in the Caribbean area. . . Capt. Phil Katz, writing from San Antonio, says it's

the best field in the nation and the personnel the same, adding "if I had to do it over again I would do exactly what I did on July 27, 1942". . . Lt. Francis Epstein is in training at Camp Carson, stating that he expects someday to set up a battalion aid station on the front somewhere, "which promises to be rather exciting".

* * *

Lt. Edwin Cauffield, Akron, whose new address is U.S. Naval Hospital, Hadnot Point, N.C., writes as follows:

"I was stationed at the Norfolk Naval Hospital in Portsmouth, Va., from the time I entered the service in October to the middle of January. Then I was ordered down to New River, N.C., with the Fleet Marine Force. They put us through a Field Medical School which is new and I was in the first class. We had a course of marine training which was pretty rugged but interesting. It consisted of firing various weapons on the range, drilling, landing actions, transportation, and field medicine. Have been waiting around for an assignment to a combat unit for South Pacific duty, but orders came through last week transferring me to the staff of a new Naval Hospital here which will be opened May 1. I expect to be doing urology and will like it for the hospital is beautifully situated and very well equipped."

* * *

The nomination of Norman T. Kirk to be Surgeon General of the Army with the rank of major general has been sent to the U.S. Senate by the President. He is to succeed Major Gen. James C. Magee, whose term expires on June 1. General Kirk is 55 years of age and until recently was commanding general of the Percy L. Jones General Hospital, Battle Creek, Michigan. He was formerly chief of the surgical service at the Army Medical Center, Walter Reed Hospital, Washington.

* * *

Following a year's tour of duty in the South Pacific, Lt. Comdr., W. J. Sheehan, formerly head of the surgical service, St. Vincent's Charity Hospital, Cleveland, spent a week with his family in Cleveland, before reporting to his new post, Naval Base Depot, Port Hueneme, Calif.

* * *

Heretofore a soldier who needed legal advice went to his company commander, the post chaplain, or the Red Cross representative. Under a new plan sponsored by the War Department and the American Bar Association, a commissioned officer who is also a licensed attorney is appointed the legal assistance officer at each post, camp or station. The legal assistance officer will have the cooperation and help of volunteer civilian lawyers from nearby communities who have been chosen by the state bar association committee on war work for that purpose. The only barriers put on the aid offered is that the legal

assistance officer may not collect debts, advise or assist military personnel who are or might be subject to court-martial investigation or charges, and he may not appear before civil courts, boards or commissions as attorney for the soldier or officer.

* * *

The following feature story was published in a recent issue of *The Columbus Dispatch* about Capt. George B. Watson, former Columbus surgeon, home on leave after active duty in Alaska:

"Five months in an Alaskan 'ghost' town, where sub-zero temperatures make glass eyes explode like firecrackers, have strengthened Capt. George B. Watson's faith in the American people.

"Home on leave for the first time since he went to Alaska late in October, the assistant professor of surgery and gynecology at Ohio State University had nothing but praise for the soldiers in limited service with whom he has worked under conditions more trying than he cares to remember.

"My faith in the American people has been greatly strengthened", he declared. "These boys—some of them with glass eyes, some of them without teeth, asthmatics, cardiacs and nephritics, some of them with crippled limbs—would have liked the glory of battle. But theirs is the important job of transporting supplies and they're doing a good job'.

"His was a work battalion whose duties were unloading urgently needed freight from ships and getting it through to highways when the weather permitted.

"When he arrived more than a dozen ships were in the harbor, waiting to be unloaded, and the railroad hadn't been running for two weeks.

"But when I left, the docks were clean, there were no ships waiting and all the freight had been moved", he said, opining that that section of Alaska had been activated 500 per cent during his stay there.

"Captain Watson's job was to set up a station hospital and 'we started from scratch', he said. He took over the biggest house in town—a mansion built of materials from New York by a notorious gambler of the Gold Rush days—and it kept two boys busy day and night keeping the oil cans filled for the 27 stoves in the improvised hospital.

"Serious accidents were kept at a minimum and there was only a mild influenza epidemic. There were three emergency appendectomies, one of which Captain Watson performed on a desk with the aid of flashlights.

"The gold rush boosted Skagway's population to 20,000 but now there are only several hundred residents; the rest are soldiers and civilians employed on construction work. Summer there brings 18 to 20 hours of sunlight, letting celery

stalks grow five feet tall and potatoes 12 inches long.

"Temperatures 20 degrees below zero make glass eyes—of which there were many in this limited service unit—explode 'like firecrackers'.

"The soldiers celebrated Thanksgiving by having their first real bath in three months and Captain Watson laughs to recall the line of eager soldiers, three blocks long, who patiently waited their turn at the newly-installed showers".

* * *

Injured while in action in North Africa, Captain Edgar C. Pickard, formerly of Stow, is now on duty at the Station Hospital, Camp VanDoren, Miss.

* * *

Cleveland friends have been informed by Dr. Grace Haskins, formerly of Cleveland and who has been serving on the medical staff of a British Army Hospital somewhere in England, that she has applied for a commission in the Army Medical Corps and expects to receive her appointment in the near future.

* * *

Major S. C. Yinger is spending a 30-day sick leave at his home in Springfield, after several months overseas' service. He expects to report soon to Battle Creek, Mich., for assignment.

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At present taking a special course in plastic surgery at the University of Pennsylvania, Dr. Hubert M. Amstutz, Lancaster, was recently promoted to the rank of major, U. S. Medical Corps. He had previously been located at Camp Shelby, Miss.

* * *

Recently appointed to the rank of captain, Army Medical Corps, Dr. Paul E. Reading formerly of Painesville, is with the 69th Medical Regiment, Co. D, Camp Polk, La., and is now on maneuvers.

* * *

It's now Lt. Col., Arthur A. Brown, formerly of Canal Fulton. Dr. Brown, who recently received his promotion, is now assigned to the 39th Evacuation Hospital, Camp Atterbury, Ind., following graduation from the command and general staff school, Fort Leavenworth, Kan.

* * *

Modern medical science is playing an important role in fighting the Japs, according to Maj. Carl E. Zeithaml, formerly of Cleveland, who is home on leave after four months in New Guinea and almost two years on active duty. Survivor of 30 Jap air raids on New Guinea, Maj. Zeithaml has been visiting in his old home, Chagrin Falls. He expects to report to Randolph Field, Texas, to complete a course in aviation medicine. Commenting on his experiences, Maj. Zeithaml said:

"Four months in New Guinea have convinced me that modern medical science is playing the role of unsung hero in this war. Without it disease would take a greater number of lives than Jap bullets and bombs. Besides keeping the boys healthy and their morale up, the medical corps also plays big brother to the young men who get bomb happy and homesick". He stated that among the biggest jobs in the jungle sectors were sanitation, malaria control and supervision of foods.

* * *

New address of Lt. Col., Walter B. Johnston, Lakewood, is 52nd Medical Bat., A.P.O. 3784, % Postmaster, New York City.

* * *

The following Ohio medical officers were among recent graduates from the School of Aviation Medicine, Randolph Field, Texas, and are now full-fledged aviation medical examiners: Lt. Russell K. Ameter, Bryan; Lt. Alfred K. Bard, Cleveland; Lt. Robert A. Bruce, Dayton; Lt. Clayton W. Clark, Cleveland; Lt. Sidney W. Durschlag, Cleveland; Capt. John Mackay Hamilton, Cleveland; Capt. A. Morton Karlan, Springfield; Capt. Elmer E. McClelland, Bellaire; Maj. Robert D. Mansfield, Canton; Lt. John E. Martin, Columbus; Lt. Louis G. Ralston, Youngstown; Lt. Edward W. Sanders, Bellevue; Maj. Paul A. Stoodt, Mansfield; Lt. Kenneth L. Stratton, Portsmouth; Lt. Edwin R. Westbrook, Warren; Lt. Joseph F. Hattenbach, Cleveland; and Lt. Samuel J. Klatman, Youngstown.

* * *

The merchant marine has honored the small group of medical men who in its earlier years made Johns Hopkins University famous throughout the world by naming new Liberty ships the William Osler, the William Welch, the William S. Halsted, the Howard A. Kelley, the John J. Abel and the Franklin P. Mall.

* * *

There is "none of this glorified stuff you see in the movies" in the life which American boys are living on the battlefronts, according to a letter received by friends from Major Kenneth F. Lowry, former Troy physician, now in North Africa. He makes the following observations to prove his point":

"War is dirt, mud and rain, getting wet and being cold—at times unable to even wash or shave for I won't say how long, and having soldiers brought in who were perfect specimens of manhood yesterday and now maybe dead or have a leg or arm blown off, or perhaps stippled with shell fragments with penetrating holes from head to foot. There is none of this glorified stuff you see in the movies or read in books!

"We have traveled many miles in the last five

weeks. In fact we have moved more times than I can remember, and as you well know we were for awhile traveling in the wrong direction. At one time we moved seven times in five days.

"At present we are occupying some French barracks. This barracks was pretty uncomfortable the night we moved in. The doors at both ends had been blown off and nearly all the windows were either blown or burnt out and there were numerous holes in what had been a good tile roof. It was blowing a gale and the rain was coming down in torrents. We went to bed to get warm and slept fine. Morning found two inches of water all over the floor and more pouring in.

"We are more comfortable now. The windows are boarded up and doors were borrowed from other partially destroyed barracks to close one end of this one. My brother and I are huddled around a coal oil heater (German) writing on our knees by the light of a lantern.

"No it isn't fun. Our only consolation is in the feeling that we have been responsible in saving a number of those boys who undoubtedly could not have survived the long, rough ride back to a surgical or evacuation hospital. I am in position to definitely state that some of the best medical and surgical talent of our nation is in the army and navy. I have had opportunity to meet and talk with many of them personally; many well over the age that might make one feel that he should enlist, have volunteered his services and is now serving with a commission which pays him only a fraction of his former income. When men of that calibre are over here helping to convert the wounded back to healthy young men again it makes me glad to be an American and to be over here working with them."

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Lt. Col., Franklyn A. Rice, Cleveland, has been assigned as chief of the surgical service, Billings General Hospital, Indianapolis.

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Writing from Station Hospital (Haddon Hall), Army Air Forces Technical Training Command, B.T.C. No. 7, Atlantic City, Capt. John Paul Sauvageot, Akron, states he is "fortunate in being able to do the type of work I'm trained for and the experience is educational and broadening". As chief of the cardio-vascular-renal section and consultant to the post flight surgeon, he makes the following report on some of the problems which have to be faced:

"Fifty-five of the hospital's 2000 beds are almost constantly filled with cardiac or related cases. Aside from every type of rheumatic valvulitis, we have seen three cases of patent ductus arteriosus, three of patent interventricular septum, and one of isolated dextrocardia. At present, one of our 30 year old ward boys is recovering from an acute anterior wall infarction with

pericarditis! We have had many cases of heart-block and paroxysmal tachycardia, and a very intensive experience with all degrees of neuro-circulatory asthenia. We have a very congenial and cosmopolitan staff. Last fall while the post was still being activated, my assignments were varied and interesting, including dispensary establishment, lecture work at Convention Hall, and special orders which took me to California, Wisconsin, and Massachusetts".

* * *

Somewhere in the South Pacific, Lt. J. L. Bilton, Cleveland, lectured to the island hospital corpsmen on "Head Injuries".

* * *

The "militarized medicos" are doing a fine job, writes Lt. Col. R. J. Borer, formerly of Toledo, now acting chief of medical service, Billings General Hospital. (He got his promotion recently.) Comments Col. Borer: "Reports from good authorities indicate that the medical corps is performing a marvelous job in all combat areas. The boys back from the battle zones having nothing but the highest praise for all the medical installations. It would amaze you to see how excellent the medical records are".

* * *

Venereal disease rates in the Navy have dropped to new all time lows, a special subcommittee of the National Advisory Police Committee on Social Protection was told by Comdr. T. J. Carter, who is in charge of preventive medicine in the Bureau of Medicine and Surgery. Sick list admissions last year in the entire Navy, ashore and afloat, due to syphilis, gonorrhea and the lesser venereal infections totaled 36 per thousand men, a decrease of 29 per cent from 1941 and of 55 per cent since 1940. "During 1942, only 28 per cent of the Navy's venereal disease problem came from foreign ports", Commander Carter revealed.

* * *

What's a ski-trooper and how do the ski-troopers train for their work? For the information of the curious, here's a letter received by the Cleveland Academy of Medicine from Lt. Raymond K. Minge, formerly of Cleveland, now at Camp Hale, Colorado:

"We see lots of fractures and sprains but my job is chiefly to see that they get properly splinted and transported to the hospital. And this business of evacuating wounded in the mountains is a real problem. It is usually done by toboggan drawn by four men on skis—a difficult job down a steep mountain side.

"I didn't settle down to this business of learning to ski until the latter part of January. At that time I was transferred to the 99th Inf. Bn.—the Norwegian battalion. About fifty per cent of our men were born in Norway and the others are of Norwegian descent and speak the language. We have many excellent skiers and have received excellent ski instruction. However, to

ski down a steep mountain slope with a 75 lb. pack on your back is different from recreational civilian week-end skiing; but it's great sport. After the War I think I'll spend my vacations at Sun Valley. My wife also has a pair of skis, but my little boy, being only a year old, still feels more at home in his playpen. After a day at a ski tow I sometimes feel that is where I belong too.

"During the past six weeks we have been going out on three or four-day ski hikes, covering fifteen to twenty miles a day. This camping in the snow really isn't so bad. We have every imaginable type of winter clothing and the sleeping bags are very comfortable, although it's a struggle to get oneself zipped into it. We carry little tents, but during our last trip I didn't use the tent at all; with a good thick bed of pine boughs under the sleeping bag one can be very comfortable sleeping under the stars in sub-zero weather. We carry rations for four days and a little gas stove to cook on. The food is put up in a concentrated dehydrated form. It contains the necessary calories and vitamins but gets awfully tiresome. Then also, our only source of water on these hikes is snow. And to get snow to melt and boil in cold weather and at this high altitude is a long job; the result is that most of us have become snow eaters. The Arctic explorer, Steffanson, in a lecture to us a few nights ago, said he had eaten tons of snow—likewise all his men—without ill effect. He also said they ate raw frozen fish like corn on the cob, but I draw the line there!"

* * *

Word has been received at Manchester that Capt. James Inman, Manchester physician, has been wounded in action in the South Pacific. It was reported he received ear and body injuries when the jeep in which he was riding struck a Jap land mine.

* * *

The President has abolished the Office of Defense Health and Welfare Services and transferred the duties and functions of that office to the Federal Security Agency where administration probably will be carried on by a division to be known as the Office of Community War Services.

* * *

Word from Maj. Phil T. Knies, Columbus, from Bryan Field, Bryan, Texas, was received recently by the Executive Office of the Columbus Academy. Phil wrote as follows:

"This is just a personal greeting and a 'here am I' to let you know where some more of the Columbusites are at this time. Having finished the twelve weeks of the School of Aviation Medicine at Randolph Field and at the San Antonio Aviation Cadet Center, I was sent here to the Station Hospital as Flight Surgeon and to act as Chief of Medicine. It was a particularly fortunate assignment and promises to be very helpful and interesting. Strangely enough, I am becoming very interested in the administrative side of this hospital business, at least from the military standpoint. The medicine is much the same here as elsewhere, but the other is very new to me—and toe-stubbing, too.

"At Randolph there were a large number of

men from Columbus and from Ohio State: Joe Forrester, Trent Smith, Bill Craig, Boilleau and Bud Martin were in my class. The present class at the School includes John J. Clark, Morris L. Battles, E. J. Booth, Dick Wallace, Merrit K. Marshall, Bill Mitchell, Jerry Meyers, Earl Pinnell, John Urban and Raymond H. Schroeder. I had hoped to have dinner with them before I left Randolph, but missed it because of a dance scheduled at the Club that night".

* * *

Who says the army ortho-pod isn't a busy chap? Doubting Thomases should blush at the following report by Maj. William Brogden, Canton orthopedist, now stationed at the San Antonio Aviation Cadet Center:

"I have a staff of seven men and an orthopedic bed capacity greater than Aultman's entire bed capacity. As chief of service I have plenty to do, in addition, for example I'm operating five majors in the morning. I have done five open reductions and laminectomies for fracture-dislocations of cervical vertebrae. Since the hospital opened last June our deaths for the whole hospital have been three, all general surgery, none on orthopedics and we operate from 25 to 35 cases each day. This does not include fractures or repairs of plane crashes. You can readily see that we work and I'm fortunate and grateful to have been placed in my field. The Army is doing a splendid job in this respect and many heroes of medicine and surgery are going to be born in this conflict as the result of it."

* * *

A number of Cleveland physicians on active military service in New Zealand are taking an active part in postgraduate programs being sponsored there for military and civilian doctors. Recently Lt. Comdr., A. C. Ernstene was a guest instructor at the Medical School, University of Dunedin, New Zealand. Lt. E. J. Ryan lectured on treatment of the menopause, functional uterine bleeding, and sterility before the New Zealand unit of the British Medical Association.

* * *

Captain Eldon E. Smith, Toledo, (recently appointed to that rank) is operations officer, 182nd Station Hospital, Camp Breckenridge, Ky. He writes that he appreciates receiving *The Journal* each month, adding: "These numbered station hospitals are really fine. They are just the right size—that is the 250-bed ones are—with just the right number of men and officers to work efficiently. Paper work is all it is cracked up to be—very tiresome but quite necessary".

* * *

Following are some right-off-the-griddle news items from a few of Columbus' medical officers: Lt. John E. Martin is stationed at Geiger Field, Wash., as flight surgeon with a heavy bombardment group. Capt. Albert Kostoff is in charge of the Officers' Section—Medical Service—at Fort Dix. George Field, Illinois, is the station of Capt. Clement V. Wolfe. Transferred from Fort Jackson, Capt. Gerald N. Wilson is now at Camp

Forrest, Tenn. His outfit is fully-equipped and ready to go, writes Capt. Wiley L. Forman from San Francisco. Lt. Emanuel C. Liss writing from Camp Bowie, Texas, says the Columbus Academy Bulletin is "superseded only by my pay check". After spending five months on the desert of California, "many things I used to take for granted now seem like luxuries", reports Capt. P. A. Volpe from Camp Cooke, Calif. Capt. W. B. Andrus is at Jefferson Barracks, Mo. Capt. C. O. Cramer is doing internal medicine at La Garde Hospital, New Orleans, "a nice hospital and good men". Capt. George H. Bonnell, Jr., has left Fort Benjamin Harrison, Ind., for the Station Hospital, Camp Tyson, Tenn. Major Edgar B. Junkermann is at Camp McCoy, Wis. After a three-month course in anesthesiology, Lt. Milton L. Goodman has been assigned to the Station Hospital, Pocatello, Idaho. Capt. J. M. Gettrost is now stationed at San Luis Obispo, Calif. Assigned to the 90th Station Hospital, Lt. Norman O. Rothermich is at Fort Lewis, Wash. Capt. Charles W. Edwards is with the 198th Coast Artillery Battalion, Anti-Aircraft Training Center, Fort Sheridan, Ill. After being out of the country for 42 days as surgeon on a transport, Capt. D. J. Whitacre is back at New Orleans. Capt. Lawrence E. Turton is with the Shenango Personnel Replacement Depot at Transfer, Pa. Lt. Edward G. Feldman is stationed at Bruns General Hospital, Santa Fe, New Mexico. Maj. Harry Shamansky is back from Puerto Rico and is stationed at Camp McCain, Grenada, Miss.

* * *

His French instructress "thinks I'll learn to speak the language", writes Lt. Jack Greenfield, Cleveland, from North Africa.

* * *

"We are stationed temporarily at a very good army hospital with excellent accommodations. In fact it is very much better than I expected to find overseas", writes Lt. C. C. Landen, Columbus from 112th Station Hospital, A.P.O. No. 3334, % Postmaster, New York City. He continues: "We can still use a lot of doctors although we are not yet worked to death".

* * *

Lt. Col., Anthony Ruppertsberg, Columbus, C. O. 71st Station Hospital, A.P.O. No. 913, % Postmaster, San Francisco, is commanding officer of a medium sized hospital in the Pacific area. Writing to Columbus friends recently, he paid high tribute to the officers, nurses and enlisted men on the staff, "accounting for the fine end results obtained".

* * *

Capt. Herbert P. Ramsayer, Canton, whose address is A.P.O. 868, Postmaster, New York City, is "somewhere" where "the native population is made up of English, Dutch, Spanish, Negroes,

East Indians, Chinese and all shades between or among them; the climate is like New Orleans in June except wetter; and where a blazing sun with the help of the walk (a 10-mile hike) sure can take a few pounds off in a hurry".

* * *

"At present I am engaged in instructing fellow medicos in the intricacies of chemical warfare medicine and combat medicine", wrote Capt. Kenneth M. Smith to Columbus colleagues. His address is American School Center, A.P.O., No. 645, % Postmaster, New York City.

* * *

What a break for the gobs! It's reported the Navy is planning to take over the resort hotel at Sun Valley, Idaho, and Hotel Awahnee, Yosemite National Park, Calif., and convert them into convalescent hospitals.

* * *

"We continue to increase the population of the field without commensurate increase in medical officers. This 6.5 M.D.'s per 100 soldiers is a myth and don't let anyone convince you otherwise, although I grant that large base hospitals probably eat up a lot more than their pro rata share." Thus writes Capt. O. G. Wilson, Canton, from 750 Ivanhoe Street, Denver.

* * *

Lt. Gus Shaheen, Canton, has been taking a course in parasitology at the Army Medical School, Washington.

* * *

Recently promoted to Major, Dr. Frederick G. Smith, Marion, is stationed at Nichols Hospital, Louisville, Ky.

* * *

Now serving with the Pacific Fleet, Harold T. Gross, Columbus, recently was promoted to the rank of Lt., Senior Grade, M.C., U.S.N.R.

Salesman May Be A Phoney

A member from Southern Ohio has written *The Journal* as follows: "On March 6, 1943, a Mr. C. Herman, representing himself as from Columbus and representing himself as the representative of Glickman & Co., New Orleans, took a small order for some clothing, upon which order a small deposit was made. Nothing has been received and a letter sent to Glickman & Co. remained unanswered. Later, after inquiry, a reply was received from the postmaster at New Orleans that Glickman & Co. is not listed in the New Orleans City Directory."

There may be a "Mr. C. Herman"; there may be a "Glickman & Co.", and maybe the good doctor will eventually get his clothing, but there are too many "maybes" to be sure of the outcome. Therefore, it is suggested that other physicians be wary about dealing with representatives of such a company, if there is one, and patronize home-town clothing stores.

Latest Statistics on Hospitals, Including Those in Ohio, Found in Annual Census of A.M.A.

DURING the year 1942 one person entered a hospital in the United States as a patient every 2.5 seconds, according to the twenty-second annual census of hospitals by the Council on Medical Education and Hospitals of the American Medical Association, published in the March 27 issue of *The Journal* of the Association.

Nearly one tenth (9.5 per cent) of the entire population, on the basis of the 1940 census, became a hospital bed patient in 1942. During that year surgical operations were at the rate of one to each 5.6 seconds and the hospital birth rate exceeded three live babies to the minute.

A total of 6,345 registered hospitals, sanatoriums and related institutions located in the United States and 128 in Alaska, the Canal Zone, Hawaii, Puerto Rico and the Virgin Islands are listed in the census. This is a decrease of 13 in the number of hospitals on the register one year ago.

The report points out that "it is well to distinguish between registration and approval of hospitals. Registration means the inclusion of a hospital in the list maintained by the Council on Medical Education and Hospitals and published in the Hospital Number of *The Journal* and in the American Medical Directory. . . . Approval means specific endorsement of hospitals for educational purposes, the fitness for which is determined by observation, inspection and comparison with definite requirements for the training of interns and residents.

"Registration is a basic recognition, extended to the hospitals and related institutions concerning which the Council has no evidence of irregular or unsafe practices. Approval is designation of certain registered institutions by the Council for internships, residencies and fellowships."

FIGURES ON CAPACITY

The capacity of registered hospitals, the report points out, is 1,383,827 beds and 71,448 bassinets. There are 59,446 more beds and 5,285 more bassinets than one year ago. This growth in hospital facilities for the past year was the equivalent of a 163 bed hospital for every day in the year.

It was found that 610 hospitals have blood banks, 1,741 have plasma banks, 546 have both, while 2,457 have such facilities readily available but not in the hospital.

The total number of patients admitted during the year 1942 was 12,545,610, an increase of 949,422, or 8.2 per cent, over the previous year.

The total of hospital patients operated on

during the year was 5,607,879, or 44.7 per cent of all who were admitted for bed care.

DECREASE IN OCCUPANCY

The percentage of occupancy in all hospitals has decreased steadily during the past three years, the figure being 83.7 in 1940 as compared with 81.4 in 1942. However, nongovernmental hospitals increased in occupancy during that three year period from 68.5 per cent to 72.7 per cent, the increase being found in all groups of nongovernmental hospitals, including church related, nonprofit associations and proprietary institutions. In governmental hospitals the rate of occupancy declined from 89.8 per cent in 1940 to 84.5 per cent in 1942 and during that same period federal hospital occupancy declined from 79.5 per cent to 66.6 per cent.

The trend has been upward in the occupancy rate of maternity hospitals and downward in children's, orthopedic and isolation hospitals, whereas there has been little trend either way in other classifications as to types of service.

BIRTHS IN HOSPITALS INCREASE

The total births in hospitals for 1942 was 1,670,599. This represents an increase of 265,659 over the 1,404,940 in 1941. Figures reported for births by hospitals refer to the number of live babies born. The hospital births in 1942 were nearly two and one-half times those of 1929. More than 97 per cent of the births reported in 1942 were in general hospitals; 85 per cent, or a total of 1,420,079, were in nongovernmental hospitals, and the remaining 15 per cent or 250,520 were in governmental hospitals. The average number of babies accommodated per bassinet during 1942 was 23.3, compared with 21.2 for 1941, 19.6 for 1940 and 12.9 for 1929, showing increasing utilization from year to year of the existing supply of bassinets.

242 OHIO HOSPITALS REGISTERED

The Council registered 242 Ohio hospitals in 1942, five less than in 1941. Their bed capacity was 58,532; bassinets, 3,351. Patients admitted totaled 583,491, compared with 550,668 in 1941. The average daily census was 52,537. The comparable figure for 1941 was 50,510. There were 26,479 deaths (excluding stillborn) in Ohio's registered hospitals in 1942, a decrease from the total of 27,448 deaths reported in 1941. The percentage of necropsies in 1942 was 22.5. Patients admitted plus live births totaled 687,095. The death rate (per cent of admissions plus live births) was 3.9. There were 282,841 patients

operated on in registered hospitals in Ohio during 1942, representing 48.5 per cent of the patients admitted. Based on the 1940 census which showed the population of Ohio to be 6,907,612, the percentage of the people of Ohio hospitalized during 1942 was 8.4.

At the time the report of the Council was being prepared, 1941 was the latest year for which data on the births in the country at large was made available by the Bureau of the Census. Based on the total live births for 1941 reported by the U. S. Census Bureau and live births in hospitals in 1941 as shown by the A. M. A. Annual Census of Hospitals for that year, the per cent of births occurring in Ohio hospitals in 1941 was 65.5, compared with 55.9 per cent for the entire country. Total live births in Ohio in 1941 was 126,155, of which 82,677 were in hospitals. In 1936 the rate for Ohio was 42.4 per cent and in 1931 it was 34.4 per cent.

OHIO INSTITUTIONS CLASSIFIED

Ohio hospitals are classified by control as follows: Federal, 8; state, 23; county, 26; city, 20; church, 43; nonprofit associations, 99; individual and partnership, 14; corporations, 9—a total of 242, of which 165 are nongovernmental.

Classification of Ohio hospitals by type of service is as follows: general, 152; nervous and mental, 25; tuberculosis, 22; maternity, 8; industrial, 1; eye, ear, nose and throat, 1; children's, 3; orthopedic, 3; isolation, 1; convalescent, 8; hospital departments of institutions, 16; others, 2.

The report shows that in 1942 the administrator or superintendent of 75 of Ohio's 242 registered hospitals was an M.D.; 75, an R.N., and 92, "other". Statistics on technical personnel in hospitals that year reveal that there were 105 full time nurse anesthetists and 15 part time; laboratory technicians 511, full time and 92 part time; X-ray technicians, 241, full time and 59 part time; dietitians, 289 full time and 25 part time; physical therapists 108 full time and 23 part time; pharmacists, 100 full time and 28 part time; medical record librarians, 134 full time and 40 part time; other librarians, 44 full time and 26 part time; medical stenographers, 252 full time and 46 part time; occupational therapists, 57 full time and 10 part time; dental hygienists, 20 full time and 39 part time; social service workers, 108 full time and 44 part time.

PROBLEM OF HOUSEMEN

The report of the Council includes a section on "Internships, Residencies and Fellowships." Commenting on the increasing shortage of interns and house officers, the report states:

"In the face of this shortage it would seem particularly important that all hospitals cooperate in an effort to maintain an equitable distribution

of interns by limiting their appointments to actual minimum needs. As a general rule the ratio of house officers to patients should not exceed 1 intern to 600 annual admissions. Economy in the use of interns is important not only from a numerical point of view but also in relation to individual duties and assignments. Thus to conserve the interns' time for essential hospital and educational needs the routine procedures which do not contribute materially to the training course should be shifted to nursing and technical personnel whenever possible. Obviously when an intern group has been diminished it may likewise become necessary for the members of the attending staff to take over many of the functions ordinarily assigned to house officers. Under present conditions it is increasingly important that the educational character of the internship be preserved. The employment of interns, therefore, should not be viewed primarily as a means of supplying personnel in relation to institutional service".

The intern and resident situation in Ohio hospitals appears in Table F of the report which shows that in January, 1943, out of 435 internships offered only 305 were filled; residencies, 178 offered, 125 filled; assistant residencies, 172 offered, 118 filled; fellowships, 39 offered, 29 filled.

APPROVED FOR INTERNSHIP

The following Ohio hospitals, numbering 39 are approved for internship: City, Peoples and St. Thomas Hospitals, Akron; Aultman and Mercy Hospitals, Canton; Bethesda, Christ, Cincinnati General, Deaconess, Good Samaritan, Jewish and St. Mary's Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Fairview Park, Lutheran, Mt. Sinai, St. Alexis, St. Luke's, St. Vincent's Charity, Woman's, and University Hospitals, Cleveland; Mt. Carmel, St. Francis, Starling Loving University and White Cross Hospitals, Columbus; Huron Road Hospital, East Cleveland; Miami Valley and St. Elizabeth's Hospitals, Dayton; Memorial and St. Rita's Hospitals, Lima; City Hospital, Springfield; Lucas County, Mercy, St. Vincent's and Toledo Hospitals, Toledo; Youngstown and St. Elizabeth's Hospitals, Youngstown.

APPROVED FOR RESIDENCIES

Hospitals in Ohio approved for residencies in specialties number 40. They are: Children's People's, City and St. Thomas Hospitals, Akron; Mercy Hospital, Canton; Christ, Children's, Cincinnati General, Deaconess, Good Samaritan, Hamilton County Tuberculosis, Jewish, Longview State Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Fairview Park, Glenville, Mt. Sinai, St. Alexis, St. John's, St. Luke's, St. Vincent's Charity, and University Hospitals, Cleveland; Children's, Columbus State, Starling Lov-

ing University Hospitals, St. Francis, Franklin County Sanatorium, Grant, and White Cross Hospitals, Columbus; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; General Hospital, Mansfield; Massillon State Hospital, Massillon; Lucas County General, and St. Vincent's Hospitals, Toledo; Cleveland Tuberculosis Sanatorium, Warrensville; Harding Sanitarium, Worthington, and St. Elizabeth's and Youngstown Hospitals, Youngstown.

PATHOLOGICAL TRAINING

The Report of the Council contains a list of 227 schools approved for training clinical laboratory technicians. The list includes the following in Ohio: City Hospital, Akron; St. Thomas Hospital, Akron; Good Samaritan Hospital, Cincinnati; Mt. Sinai Hospital, Cleveland; University Hospitals, Cleveland; Mt. Carmel Hospital, Columbus; Starling Loving University Hospital, Columbus; Huron Road Hospital, East Cleveland; Mercy Hospital, Toledo; Toledo Hospital, Toledo; St. Vincent's Hospital, Toledo; Youngstown Hospital, Youngstown.

The Cleveland Clinic Foundation Hospital, Cleveland, is included in the 22 schools approved in the United States for the training of physical therapy technicians.

Free Supplement to U.S.P. XII

Owners of all copies of the U.S.P. XII should fill in and mail the post card order which is tipped inside the back cover of the U.S.P. XII, and which entitles the holder to a copy of the First U.S.P. XII Bound Supplement soon to be issued. It was not expected that this supplement would be issued until about two and one half years after the appearance of the U.S.P. XII, but changing conditions and wartime demands have necessitated its immediate publication. The supplement itself will carry a similar order form for a Second Bound Supplement, should the latter be required before the appearance of the U.S.P. XIII. It is expected that the First U.S.P. XII Bound Supplement will be available within two months and when it becomes available immediate shipment will be made without further cost to those who mail in their order as directed.

New officers of the Ohio Hospital Association are: Leo Lanpher, superintendent of Lutheran Hospital, Cleveland, president-elect; W. L. Benfer, superintendent of the Toledo Hospital, president; Miss Agnes Hatch, Chillicothe, first vice president; Sister Mary Aquin, Toledo, second vice president; E. C. Pohlman, Columbus, central district council chairman; D. A. Endres, Youngstown, north-east district council chairman, and Rev. R. V. Johnson, Toledo, delegate to the American Hospital Association.

Movies on Wartime Medical and Health Subjects Available

Motion pictures of interest to the medical profession, dealing with public health and medicine in wartime Britain, are available to county medical societies and other qualified groups through the British Information Services, 30 Rockefeller Plaza, New York City, or through the British Vice Consulate, Union Commerce Bldg., Cleveland. These are 16 mm. films.

Two films of direct interest to the medical profession are one entitled "Blood Transfusion" and one on "Plastic Surgery in Wartime." The latter film is in color, is on three reels, and requires 27 minutes for showing. This is a sound film, and the famous surgeon, Sir Harold Gillies, appears in it and speaks the introduction. Applications for its use should be made in writing to the British Information Services.

The film on blood transfusion is a survey of this medical technique and includes a history of its development internationally as well as the development of the donor system in England. It is suitable for lay groups interested in a blood bank as well as for professional audiences. On four reels, it requires 37 minutes showing time.

Titles of other films listed in the catalogue of pictures on health and medicine are: "ABCD of Health" (vitamins), "Action" (recreation and exercise), "Defeat Diphtheria," "For Children Only" (combating vitamin deficiencies in children), "Health in War," "Hospital Nurse," "Life Begins Again" (rehabilitation of injured men), "Men in Danger" (workers' health and safety), "Mother and Child" (maternal and child health services in Britain), "No Accidents" (industrial safety), "Out of the Night" (services for the blind), and "White Battle Front" (research in the laboratory and the field).

There is also a list of nutrition and rationing films which deal mainly with lunches for workers and children and "black market" problems. Other films available through this service depict air raid precautions, pre-war Britain, British youth, science (non-medical) in wartime Britain, anti-gossip efforts, and farming and gardening.

Theodore M. Gray, Piqua, member of the Ohio Senate from the 11th-12th District, composed of Champaign, Clark, Darke, Madison, Miami and Shelby counties, has been appointed executive secretary of the Ohio Association of Insurance Agents, effective following the adjournment of the current session of the Ohio General Assembly. A teacher in the Piqua High School for 16 years, Mr. Gray was elected a member of the Ohio Senate in 1940 and was re-elected in 1942.

Medical Licenses Granted to 223 Applicants by State Medical Board at Meeting in Columbus, April 26-27

LICENSES to practice medicine and surgery were granted 223 applicants by the State Medical Board at its meeting in Columbus, April 26-27. Also lincensed were 10 osteopaths, 1 chiropractor, 1 mechano-therapist, 2 masseurs and 13 chiropodists.

Dr. William H. Fries, Dayton, a graduate of Ohio State University College of Medicine, scored 87.5 per cent in the examination, the highest grade among the doctors of medicine. Second place was won by Dr. Irwin M. Vigran, Cincinnati, a graduate of the University of Cincinnati College of Medicine, with a grade of 87.2 per cent. A graduate of Western Reserve University School of Medicine, Dr. Harry Goldman, Cleveland, won third honors, with a grade of 87 per cent.

The following doctors of medicine were granted licenses:

Ohio State University—James S. Adler, Amanda; Homer A. Anderson, Columbus; James M. Anderson, Cedarville; Drew J. Arnold, Columbus; William T. Bacon, London; Dwight L. Becker, Spencerville; Selim J. Blazewicz, Pomeroy; Wendell M. Bell, Mansfield; Robert V. Beltz, Akron; Floyd M. Beman, Thurman; Stacey A. Besst, Canton; Louis Bloomberg, Youngstown; Delatus E. Brown, Columbus; Winford E. Chaney, Columbus; John W. Chrispin, Jr., Marion; Jack R. Cooper, Columbus; Arcangelo R. T. D'Amore, Youngstown; Russell P. Dreyer, Columbus; Harold W. Federer, Columbus; Manuel H. Fertman, Columbus; Frederick C. Finke, Columbus; Joseph W. Friendlander, Cleveland; William H. Fries, Dayton; Joseph M. Gallen, Columbus; Frank Gelbman, Youngstown; Louis A. Gleitsman, Dayton; Sidney Grau, Cleveland Heights; Maurice M. Greenfield, University Heights; Winfred E. Grill, Toronto; Adolph A. Gruber, Jr., Cincinnati; Phil J. Harbrecht, Pomeroy; Jack L. Harris, Middletown; Jack R. Henry, Columbus; Robert J. Henry, Columbus; Paul K. Jentes, Wooster; Arnold B. Johnson, Columbus; Merrill F. Jones, Columbus; Paul Julian Kadull, Cleveland; Charles V. Lee, Columbus; D. Robert Loeb, Marion; Frank M. Lorimer, Columbus; Robert H. Lowensohn, Cleveland; Edward W. Ludwig, St. Clairsville; Robert E. Main, Cincinnati; Lillian Marks, Columbus; Joseph A. Masaryk, Burg-hill; Richard P. Moon, Dayton; Harvey J. Nathanson, Youngstown; James H. Pollex, Toledo; Robert J. Preist, Columbus; Fred G. Schlecht, Girard; Ivan C. Schmidt, Columbus; Mary R. Schuh, Columbus; Bernard B. Shuer, Toledo; Ralph R. Snowball, Columbus; Betsy J. Snyder, Columbus; Merrill E. Speelman, Columbus; Lawson W. Stoneburner, Wooster; Wesley H. Stoneburner, Wooster; Robert C. Thumann, Columbus; John F. Tillotson, Lima; Donald W. Traphagen, Columbus; Paul C. Vernier, Stryker; Damon E. Wetterauer, Columbus; Ralph A. Wickter, Toledo; Bert C. Wiley, Jackson, Ky.; Richard P. Yoder, West Liberty.

University of Cincinnati—Arnold Allen, New

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Coming Meetings

House of Delegates of American Medical Association, Chicago, beginning June 7.

American Association of Genito-Urinary Surgeons, Stockbridge, Mass., June 10-12.

American College of Radiology, Chicago, June 6.

American Ophthalmological Society, Hot Springs, Va., June 10-12.

American Society of Clinical Pathologists, Chicago, June 4-6.

Cleveland—Dr. Farrell T. Gallagher spoke on "Recent Surgical Advances in Cancer", at a luncheon meeting in connection with the \$15,000 drive for cancer control education being conducted for the Women's Field Army for the Control of Cancer.

Youngstown—The pitfalls of federalized medicine were pointed out by Dr. Wm. M. Skipp, a past-president of the Ohio State Medical Association, at a meeting of the Mahoning Valley Health and Accident Association.

"Share-Ride" Drivers Are Liable Under "Guest" Law, Supreme Court Holds

The Ohio Supreme Court has reversed the Court of Appeals in the case of Miller, Appellee, V. Fairley et al., appellants, a "share-the-ride" test case.

The Court says: "Section 6308-6 G.C., commonly known as the Guest Statute, must be construed to effectuate its purpose, but being in derogation of the common law and the rights of those who may be injured by the negligent operation of an automobile while being transported therein, its general provisions must be strictly construed in favor of those who come within the purview of such exception.

"Under the clear provisions of such statute, the operator of a motor vehicle is not liable for the negligent operation thereof resulting in injury to a person invited to ride with him unless such operator accepts payment for such transportation or unless he is guilty of wilful or wanton misconduct resulting in such injury; but if any payment which may be considered as payment for transportation is accepted by the operator of such motor vehicle, the statute does not apply and the operator is not protected.

"Even though a party being transported pays only a portion of the cost of such transportation, such as for a share of the gasoline and oil consumed, but pays it in consideration for his transportation in connection with and for the prosecution of his business, it constitutes payment for transportation as contemplated by the Statute.

"When the owner and operator of an automobile is employed at an establishment which has an organized transportation plan in furtherance of the war administration carried on by the United States Government, under which plan he has qualified and has entered into a written contract with two other persons employed at the same establishment, by the terms of which he agrees to transport such fellow employees daily to and from such establishment and their respective homes, for which transportation each of such employees pays him the sum of 20¢ for each day they are transported, which sum the parties have agreed represents approximately one-third of the cost of the gasoline and oil consumed in such daily trips, the sum thus paid under such written contract constitutes a payment for transportation and does not create the relationship of host and guest within the meaning of the Ohio Guest Statute, Section 6308-6 G.C."

The Court took the attitude that it is just as important to the War Effort to provide security for the passenger-worker who is injured through the negligent acts of the operator as it is to conserve the tires of the vehicle in which he is transported. The Court felt that the operator could protect himself from liability by exercising due care while the passenger had no means of protecting himself from the operator's negligence.

Cincinnati—Dr. David W. Heusinkveld, member of the Committee on Industrial Health of the Ohio State Medical Association, discussed absenteeism and other phases of industrial health in a recent broadcast entitled "Your Health in War Time" over station WKRC.

In Memoriam

Ralph Reid Hendershott, M.D., Tiffin; Starling Medical College, Columbus, 1898; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 1. Widely known and respected throughout the state, Dr. Hendershott was President of the State Association during 1935-1936. He had previously served as Councilor for the Third District, having been appointed upon the resignation of Dr. E. S. Protzman, Kenton, in January, 1920 and elected to a two-year term in June, 1920. Dr. Hendershott was also a past-president of the Seneca County Medical Society which he had represented in the House of Delegates which he had represented in the House of Delegates at many state meetings. A native of New Philadelphia, Dr. Hendershott practiced in Tiffin for 45 years. During World War I he was a captain in the Medical Corps of the U. S. Army, attached to the medical staff of the 32nd Coast Artillery. Dr. Hendershott was a member of various Masonic bodies, the Exchange Club, American Legion and the Episcopal Church. Surviving are his widow, a sister and a brother.

Elmer E. Bechtell, M.D., Dayton; Eclectic Medical College, Cincinnati, 1897; aged 76; member of the Ohio State Medical Association and the American Medical Association; died March 31. Dr. Bechtell practiced in Dayton for 37 years. He was a member of the United Brethren Church. His widow and a son, Dr. Ray A. Bechtell, Dayton, survive.

Charles C. Berlin, M.D., Wapakoneta; Medical College of Ohio, Cincinnati, 1898; aged 71; member of Ohio State Medical Association and Fellow of the American Medical Association; died May 3. A native of Wapakoneta, where his father was a physician, Dr. Berlin practiced there for 45 years. Ever active in behalf of the medical profession, Dr. Berlin was president of the Auglaize County Medical Society in 1924 and secretary from 1931 to 1943. He had also represented the society many times in the House of Delegates of the State Association. Dr. Berlin was also active in fraternal, civic, literary, financial and religious affairs in the community. He was in charge of the Methodist church choir for many years; was a former president and member of the local board of education for 15 years, and had been chairman of the Blume Memorial Public Library board of trustees since its organization in 1925. Dr. Berlin was a member of the Masonic Order and a director of the Peoples National Bank. Surviving are his widow and a son, Capt. Fred P. Berlin, M.C., U. S. Army, now on duty at a station hospital in England.

William Henry Booth, M.D., Fremont; University of Wooster, Medical Department, Cleveland, 1895; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died April 22. A native of Ashtabula Dr. Booth practiced there and in Salem, before locating in Fremont in 1917. He had been retired for several years. Dr. Booth was a member of the Masonic Order. His widow and two sons survive.

Dell Scotland Bowman, M.D., Akron; University of Pennsylvania School of Medicine, Philadelphia, 1893; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died April 18. Dr. Bowman was vice-president of the Ohio State Medical Association in 1907, and a past-president of the Summit County Medical Society. He was the last of the founders of the Celsus Club, an organization of Akron physicians with membership limited to 20. Dr. Bowman began practice in Akron in 1893, but ill health curtailed his activities in 1929. For many years he was medical advisor to the Edwin Shaw Sanatorium and chief trustee of the Children's Home. He was a member of the staff at City Hospital. Dr. Bowman was a member of the Masonic Order, the Torch Club and the Akron Philosophical Club. Surviving are his widow, a daughter, a sister and a brother.

William Richard Brown, M.D., Cincinnati, Medical College of Ohio, Cincinnati, 1890; aged 75; died April 21. Dr. Brown practiced in Cincinnati for 53 years. He was a member of the Masonic Order. His widow, two daughters and a son survive.

Ola M. Buckman, M.D., Toledo; Cleveland University of Medicine and Surgery, 1897; aged 78; died April 6. Dr. Buckman practiced in Toledo for 40 years. She was previously located in Norwalk. Her brother survives.

Charles Thomas Ehrnsberger, M.D., Lima; Miami Medical College, Cincinnati, 1900; aged 77; died April 12. Dr. Ehrnsberger had been a physician for 43 years, practicing in St. Johns and Guyer before going to Lima 26 years ago. Surviving are his widow, two sons, two sisters and two brothers.

William H. Graham, M.D., Springfield; Eclectic Medical College, Cincinnati, 1901; member of the Ohio State Medical Association and the American Medical Association; died April 13. Dr. Graham

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Kantor, J. L.: Digestive Disease and Military Service, Jnl. A. M. A., Sept. 26, 1942.

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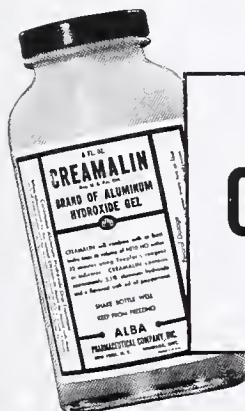
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practiced in Clark County for 42 years, 17 in South Charleston and the past 25 years in Springfield. He was a member of the Presbyterian Church. His widow, three daughters and a son survive.

Frederick Cowles Herrick, M.D., Cleveland; Western Reserve University School of Medicine, 1897; aged 71; member of the Ohio State Medical Association; Fellow of the American Medical Association, the American College of Surgeons and the American Urological Association; diplomate of the American Board of Urology and the American Board of Surgery; died April 5. Dr. Herrick retired five years ago after a notable career in medicine. One of the founders of the American College of Surgeons, Dr. Herrick had been associate clinical professor of surgery at Western Reserve University. Dr. Herrick's military record began in 1903 when he joined the Ohio National Guard. In 1918 he was chief surgeon at Base Hospital No. 83, American Expeditionary Force, and he had been a Lieutenant-Colonel in the Army Medical Reserve Corps. Dr. Herrick was a member of the Union Club and Delta Tau Delta. His widow, a daughter and three sons survive.

Clifford Paul Krohn, M.D., Morrow; Eclectic Medical College, Cincinnati, 1904; aged 72; died April 13. Dr. Krohn retired ten years ago after having practiced nearly 30 years in Pleasant Plains and Morrow. His widow and a sister survive.

William Haymaker Leet, M.D., Conneaut; Western Reserve University College of Medicine, 1895; aged 73; former member of the Ohio State Medical Association and the American Medical Association; died April 22. A practicing physician and civic leader in Conneaut for over 45 years, Dr. Leet organized the city's first hospital, which became known as Grace Hospital, the predecessor of the present Brown Memorial Hospital. He was mayor of the city in 1912 and 1913, and a former member of the board of education. In 1920 he was president of the Ashtabula County Medical Society. Dr. Leet was active in Masonic work and taught for many years a Sunday school class which he organized 45 years ago in the Congregational Church. During World War I he was commissioned a captain in the Army Medical Corps, in which he served 26 months, a year of which was spent in France. He was promoted to the rank of lieutenant-colonel. A daughter, a son and two sisters survive.

Fred William Linn, M.D., Cleveland; University of Wooster, Medical Department, 1900; aged 66; member of the Ohio State Medical Association and Fellow of the American College of Surgeons; died March 31. Dr. Linn practiced on the Cleveland West Side for 42 years, and was on the staff

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of Lutheran Hospital for many years. He was a member of the Masonic Order, the Woodmen of the World and the American Turners. Surviving are his widow, a daughter, a son—Dr. Robert F. Linn, Cleveland, his mother and two sisters.

John Robert Monihan, M.D., Cleveland; University of Buffalo School of Medicine, 1912; aged 53; former member of the Ohio State Medical Association and the American Medical Association; died April 22. Dr. Monihan retired four years ago because of ill health after practicing in Cleveland for over 25 years. He was a member of the staff of St. Luke's Hospital, and a captain in the U. S. Army Medical Corps in World War I. His widow, his parents, three sons and a sister survive.

Arthur Rembrandt Moore, M.D., Portsmouth; Bellevue Hospital Medical College, New York, 1892; aged 72; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 7. Dr. Moore began the practice of medicine in the Powellsville community in 1892. After two years there, he went to Vienna for further study, returning in 1895 to open an office in Portsmouth, continuing there until his death. During World War I, Dr. Moore served overseas for a year as a captain in the Army Medical Corps. He was a member and former chief of staff of Mercy Hospital. Dr. Moore was a member of the Masonic Order and the Methodist Church. His widow, a daughter, a son, a sister and a brother survive.

Paul Wilmer Oakes, M.D., Cleveland; Western Reserve University School of Medicine, 1938; aged 36; died April 21. Dr. Oakes practiced in Cleveland for four years. His widow, a daughter, his mother and two sisters survive.

Frank William Pilliod, M.D., Toledo; St. Louis University School of Medicine, 1915; aged 53;

member of the Ohio State Medical Association and the American Medical Association; died April 11. Dr. Pilliod practiced in Toledo for 28 years. He was a member of the staff of St. Vincent's Hospital. During World War I he was a captain in the Army Medical Corps, serving overseas. Dr. Pilliod was a member of Phi Beta Pi and Delta Phi Lambda fraternities, Knights of Columbus, Holy Name Society and the American Legion. Surviving are his widow, his mother, a sister and two brothers.

Mont Rogers Reid, M.D., Cincinnati; Johns Hopkins University School of Medicine, 1912; aged 54; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; diplomate of the American Board of Surgery; member of the American Surgical Association, Southern Surgical Association and Society of Clinical Surgery; died May 11. Dr. Reid came to Cincinnati 21 years ago as associate professor of surgery at the University of Cincinnati College of Medicine, and for more than two decades was a leader in surgical research and achievement there. In 1931 he was made Christian R. Holmes professor of surgery; head of the department of surgery at the college and director of the surgical service at the General Hospital and at Children's Hospital, positions which he held until his death. After serving his internship at Johns Hopkins Hospital in 1913, he became assistant resident pathologist there, was assistant resident surgeon from 1914 to 1918 and associate in surgery until 1921. Two years ago Dr. Reid was honored by his Alma Mater when he was invited to return to Johns Hopkins University as head of its surgery department, but he chose to continue his extensive work at Cincinnati. During World War I he was a lieutenant in the Army Medical Corps. In 1925-1926 Dr. Reid was visit-

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ing surgeon at the Pekin University Medical College under the Rockefeller Foundation. As surgeon-member of the Roy Chapman Andrews expedition into Mongolia in 1926, he was awarded a medal for his services with Feng Yu Sheng's Chinese Army. In 1934 he became the first recipient of the Matas medal for his accomplishments in surgery, presented to him at Tulane University. Dr. Reid was the author of many articles on surgery in medical journals. He was a Presbyterian, and a member of the Camargo, Commercial, Queen City, Cincinnati Country and Commonwealth clubs. His widow, a son, a sister and two brothers survive.

Arthur Howard Smith, Marietta; Medical College of Ohio, Cincinnati, 1898; aged 71; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died April 7. A native of Marietta, Dr. Smith practiced there for 45 years. Active in the affairs of medical organization, he had been president, legislative committeeman and delegate of the Washington County Medical Society, and until recently was a member of the legislative committee of the State Association. During World War I, Dr. Smith was a major in the Army Medical Corps. He was a member of Alpha Sigma Phi and the Masonic Order. His widow, a son, Dr. Lawrence W. Smith, Los Angeles, and a brother survive.

Albert Frederick Spurney, M.D., Cleveland; Western Reserve University School of Medicine, 1887; aged 77; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died April 15. Dean of St. Luke's and Polyclinic Hospital staffs, Dr. Spurney had practiced in Cleveland for 56 years. He had been chief of staff of St. Luke's; president of the board, superintendent and chief of staff at Polyclinic. Dr. Spurney was one of the founders of the Cleveland Medical Library Association. Surviving are his widow, two daughters, a son,

Dr. Paul M. Spurney and a brother, Dr. A. B. Spurney, who shared offices with him.

John Philip Throenle, M.D., St. Bernard; Pulte Medical College, Cincinnati, 1901; aged 75; died April 3. Dr. Throenle retired a few years ago after having practiced in St. Bernard for about 35 years. His widow, two daughters and six sons survive.

De Friste Vogt, M.D., Cleveland; Hospital College of Medicine, Louisville, Ky., 1884; aged 70; died April 25. Dr. Vogt practiced in Cleveland for 57 years. He had been a member of the Knights of Pythias for over 50 years. A son survives.

Charles M. Wanzer, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1883; aged 86; died April 12. Dr. Wanzer retired ten years ago after having practiced in Urbana for 50 years. He was a Mason. Surviving are his widow and three daughters.

Andrew Edgar Wrightman, M.D., Silverton, Oregon; Eclectic Medical College, Cincinnati, 1902; aged 64; died March 7. Dr. Wrightman practiced in Mansfield for a short period before moving to the West. He was active in the Knights of Pythias.

Cincinnati—Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati College of Medicine, spoke on "Alcohol and Alcoholism", at a meeting of the College Club of Cincinnati at the Woman's Club.

Columbus—"Cancer Control", was the topic discussed by Dr. Edwin J. Stedem at a public meeting at Zanesville sponsored by the Business and Professional Women's Club as part of its program of education promoted by the Women's Field Army for the Control of Cancer.

Cleveland—Dr. Charles Y. Dolezal has been appointed superintendent of City Hospital. He was formerly city welfare director.

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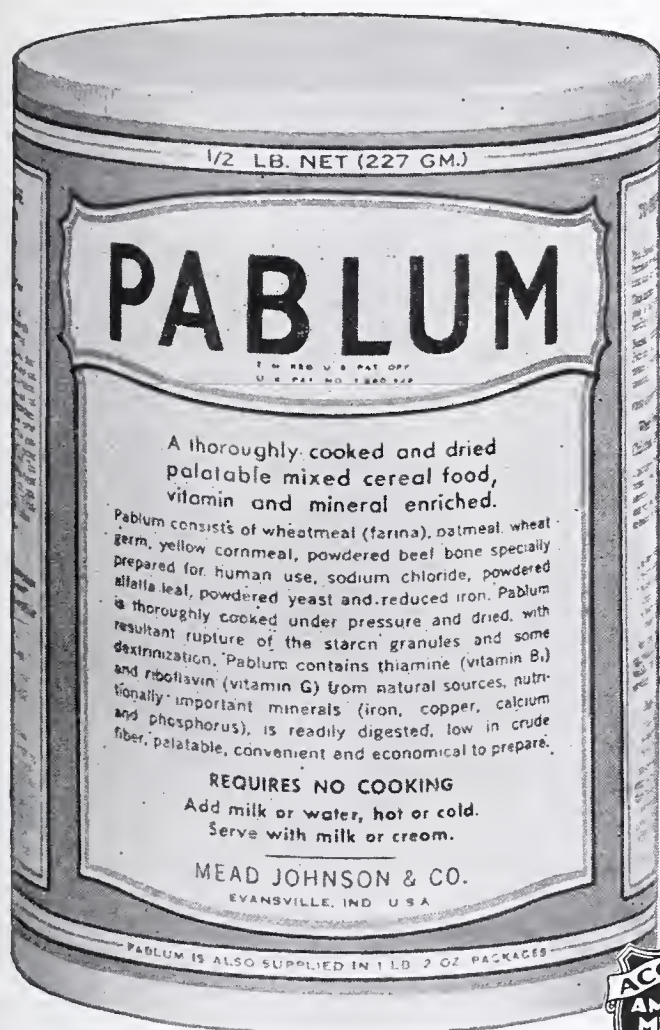
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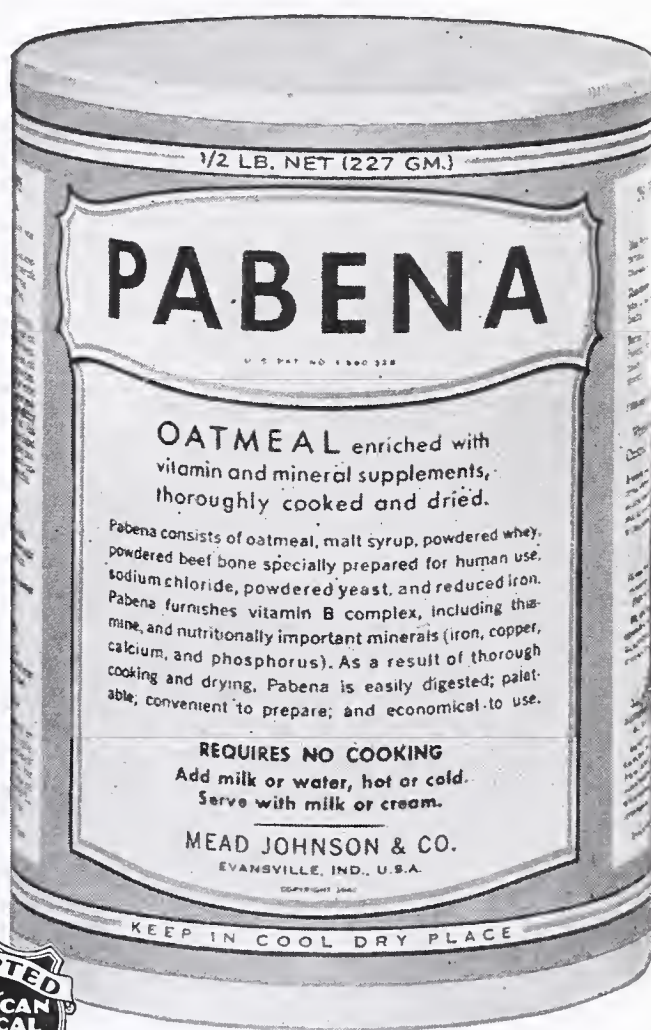
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Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M. D., CINCINNATI)

BUTLER

Judge Oscar R. Leiser spoke on "Juvenile Delinquency Problems," at a meeting of the Butler County Medical Society, April 22, at Mercy Hospital Nurses' Home, Hamilton.—Bulletin.

CLINTON

Dr. Robert Conard spoke on "The Acute Abdomen", at a meeting of the Clinton County Medical Society, May 4, at the General Denver Hotel, Wilmington.—News clipping.

HAMILTON

The following programs were presented by the Academy of Medicine of Cincinnati during May:

May 4—Hospital Night, program arranged by the Department of Internal Medicine, Cincinnati General Hospital. "Disseminated Lupus erythematosus", Dr. Johnson McGuire; "Subacute Bacterial Endocarditis", Dr. Carl F. Filter; "Pneumococcal Pyarthrosis", (presentation of a patient), Dr. M. A. Blankenhorn; "Multiple Neuritis Due to Sulfonamide Therapy", (presentation of a patient), Dr. Harry M. Salzer; "Myocarditis and Myocardosis", Dr. Richard S. Austin.

May 18—"Cystic Disease of the Lung", Dr. John H. Skavlem; "Malignant Neoplasms Simulating Pulmonary Tuberculosis", Dr. Robert J. Ritterhoff; "Facilities for Tuberculosis Control in Hamilton County", William D. Hickerson.

WARREN

Current problems relating to adequate medical attention for the people of Warren County was the topic discussed at a meeting of the Warren County Medical Society, April 13, at the Golden Lamb Hotel, Lebanon. Dr. Edward Blair was appointed secretary to succeed Dr. Jerome Hochwalt recently commissioned a 1st Lieutenant in the Army Medical Corps.—News clipping.

Second District

(COUNCILOR: H. C. MESSENGER, M.D., XENIA)

MONTGOMERY

The regular meeting of the Montgomery County Medical Society was held in the auditorium of the Dayton Veterans Administration Hospital, May 7. The following program was presented: "Primary Suppurative Myositis", Dr. B. A. Cockrell; "Malignancy of Esophagus from Roentgenological Standpoint", Dr. A. J. Brogan; "Diagnosis and Treatment of Hemorrhagic Pancreatitis", Dr. A. D. Garner; "Unilateral Exophthalmos and Its

Significance", Dr. J. A. Smart; "Avitaminosis in Neuropsychiatric Patients", Dr. J. Stanton. A social hour with light refreshments followed.—Kent Finley, M.D., president.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

HANCOCK

Dr. H. H. Brueckner, superintendent of the Lima District Tuberculosis Hospital, was the speaker at a meeting of the Hancock County Medical Society, April 8, at the Elks' Club, Findlay.—News clipping.

ALLEN

Dr. W. W. Beauchamp spoke on "Virus Infections", at a meeting of the Lima and Allen County Academy of Medicine, April 20, at Memorial Hospital, Lima. "Thoracic Pathology Including Tumors", was the topic discussed by Dr. Paul O'Rourke, O'Brien Clinic, Wayne University, Detroit, at a meeting of the society, May 19, at the Lima District Tuberculosis Hospital.—C. Bader-tscher, M.D., secretary.

New officers of the Woman's Auxiliary are: Mrs. J. R. Tillotson, president; Mrs. W. V. Parent, president-elect; Mrs. Paul J. Stueber, vice-president; Mrs. O. S. Robuck, Gomer, secretary; Mrs. C. L. Steere, treasurer.—News clipping.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The following programs were presented by the Toledo Academy of Medicine during May:

May 7—General Meeting. "Atypical Bronchopneumonia—Virus Pneumonia, and Roentgenolog-

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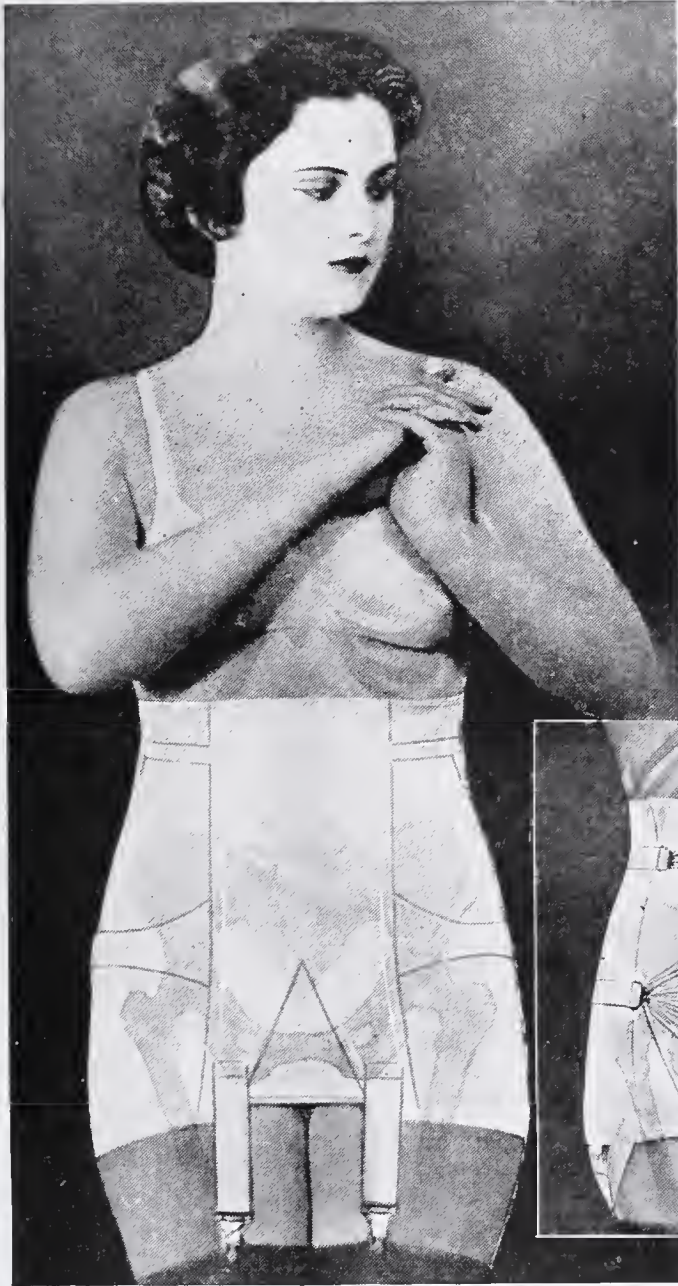
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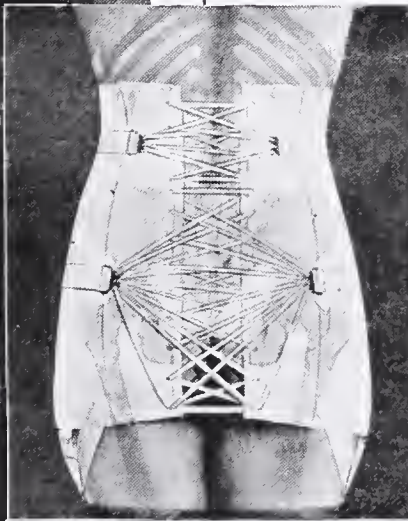


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- Support of the gluteal region.

ical Discussion of the Subject, With Case Reports", by Drs. A. A. Applebaum and C. E. Huffer.

May 14—Section of Pathology, Experimental Medicine and Bacteriology, "A Roundtable Discussion of Hospital Administrative Procedures and Problems as They Affect the Medical Staff", by Mr. Wilson Benfer, chairman, Toledo Hospital; Father Maher, St. Vincent's Hospital, and Mr. George Losh, Robinwood Hospital.

May 21—Medical Section. "Diagnosis and Therapy in Neuro-Somatic and Psychiatric Diseases", Dr. Newton Kaiser and staff of the Toledo State Hospital for the Insane.

May 28—Surgical Section. "Referred Symptoms Predominating with Primary Urological Pathology", Dr. Earl W. Huffer.—Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. Russell McGinnis, St. Luke's Hospital, Cleveland, spoke on "Operations of the Stomach", at a meeting of the Ashtabula County Medical Society, April 13, at Ashtabula.—News clipping.

CUYAHOGA

Col. W. R. Lovelace, M.C., U.S. Army, chief of the Oxygen Unit of Aero-Medicine, Wright Field, Dayton, spoke on "The Medical and Surgical Problems in Flight", at the Annual Meeting of the Cleveland Academy of Medicine, May 21, at the Medical Library, Cleveland.

The following program was presented by the Clinical and Pathological Section of the Academy, May 7: "Associated Anomalies in Congenital Heart Disease", Dr. Harold Feil; "The Clinical Use of Mixtures of Insulins", Dr. M. I. Sparks; "Adrenal Failure of Pituitary Origin", Dr. E. P. McCullagh; "Melen's Ulcer, Report of a Case", Dr. D. C. Darrah; "An Unusual Remote Condition Simulating Coronary Thrombosis", Dr. J. T. Ledman.

At a luncheon meeting of the Woman's Auxiliary, May 21, at the Higbee Company, Irene Sternbenz gave an address, entitled "We Use to Travel Further Than Our Own Backyard."—Bulletin.

LAKE

At a meeting of the Lake County Medical Society, May 11, at the Lake County Memorial Hospital, Painesville, Dr. F. E. Schmidt of the Lederle Laboratories, Chicago, gave an interesting address on "The Therapy of the Sulfonamides". Nurses of the county were guests at the meeting.—E. S. Jones, M.D., secretary.

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In their own practice, many physicians are discovering a decisive *answer to trouble* in BAKER'S MODIFIED MILK POWDER. For Baker's Powder, they find, often helps to clear up delicate and difficult feeding cases. It is readily tolerated by newborns and prematures, and makes an excellent supplementary or complementary feeding—as well as a full-time ration. It helps to discourage regurgitation, and—especially when acidified—to correct loose or too frequent stools.

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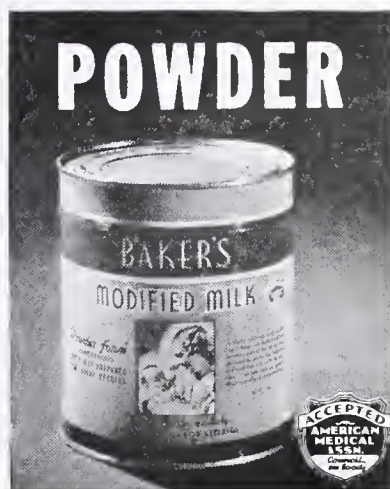
And of course, it provides those seven *extra dietary essentials* which Baker-fed babies always get—a rich supply of essential protein (40 percent more than breast milk), complementary gelatin, an adjusted fat, two added sugars, 400 units of vitamin D per quart, extra vitamin B complex, and iron—all in highly tolerable form.

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Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. H. M. Marvin, associate clinical professor of medicine, Yale University Medical School and executive secretary of the American Heart Association spoke on "Some Practical Aspects of Diagnosis and Treatment in Heart Disease", at a meeting of the Mahoning County Medical Society, May 18, at the Youngstown Club, Youngstown.—Bulletin.

PORTAGE

Dr. Morris Deitchman, Youngstown, gave an illustrated talk on "Cardiac Silhouettes", at a meeting of the Portage County Medical Society, May 6, at Robinson Memorial Hospital, Ravenna. He showed models and slides made by the American Heart Association.—Emily Widdecombe, M.D., secretary.

STARK

"Allergy and the Man in General Practice", was the topic discussed by Dr. J. Warrick Thomas, Cleveland, at a meeting of the Stark County Medical Society, April 15, at the Onesto Hotel, Canton.—News clipping.

SUMMIT

At a meeting of the Summit County Medical Society, May 4, at the Mayflower Hotel, Akron, Dr. W. A. Keitzer discussed "Common Diseases of the Prostate".—Bulletin.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

COSHOCTON

Wives and families of members and the hospital nursing staff were guests of the Coshocton County Medical Society at a dinner meeting March 25, at Riverside Inn, Coshocton. Entertainment included a very interesting program of magic and sleight-of-hand by Mr. James Wheeler of the M. & R. Dietetic Laboratories, Columbus, ably assisted by Mrs. Wheeler. This was followed by a "Take It Or Leave It" quiz contest.

Dr. George I. Nelson, Columbus, gave a very instructive talk on "Treatment of Cardiac Failure", at a meeting of the society, April 13, at the Coshocton City Hospital.—H. W. Lear, M.D., secretary.

TUSCARAWAS

Dr. R. W. Gerden of the Muskingum Climatic Research Bureau, Dover, delivered an address on "Gas Warfare", at a joint meeting of the Tuscarawas County Medical and Dental Societies, April 21, at the Elks' Grill, New Philadelphia.—News clipping.

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Give the Axe to the Axis

Buy War Bonds and Stamps

Their Cumulative Effect is Beneficial

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MUSKINGUM

Dr. Roger E. Heering, recently appointed chief of the Division of Venereal Disease Control of the State Department of Health, was guest speaker at a meeting of the Muskingum County Academy of Medicine, May 5, at the University Club, Zanesville. His topic was a general discussion of the venereal disease problem, illustrated by motion pictures with sound.—Beatrice T. Hagan, M.D., secretary.

Ninth District

(COUNCILOR: GILBERT MICKELTHWAITE, M.D., PORTSMOUTH)

SCIOTO

Rev. A. J. Kestle, district superintendent for the Methodist Church, spoke on "Food Rationing", at a meeting of the Hempstead Academy of Medicine, April 12, at Portsmouth General Hospital.—News clipping.

Mrs. J. L. Stevens, Mansfield, President of the Woman's Auxiliary to the Ohio State Medical Association, was guest speaker at a meeting of the Woman's Auxiliary to the Academy, April 19. She spoke of the state auxiliary's plans for next year and outlined a program for the local branch.—News clipping.

Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D., COLUMBUS)

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during May:

May 3—"The Recognition and Treatment of Painful Conditions of the Rectum", Dr. Richard I. Brashear.

May 17—"The Truth About Vitamins", Dr. Jonathan Forman.

Members of the Woman's Auxiliary held a musicale at the home of Mrs. George Hoskins, April 19. Mrs. James H. Warren was chairman of hostesses.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

Members of the Ashland County Medical Society and local dentists held a dinner meeting at the Ashland Country Club, May 7. Mr. F. E. Gnagey gave a talk on the history of the Office of Civilian Defense and described its functions in case of a disaster. Dr. C. B. Meuser, chairman of the medical unit of the local O.C.D., explained

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... how S-M-A eliminates many unnecessary questions that mothers usually ask about other modified milk formulas.



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**BUSY
DOCTORS
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tion of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

the organization, its duties and facilities.—L. Harold Martin, M.D., secretary.

LORAIN

Dr. Oscar Thompson, Oberlin, gave an illustrated address, entitled "Advanced Pathological Conditions as Seen in China", at a dinner meeting of the Lorain County Medical Society, May 11, at the Elks Club, Lorain.—L. H. Trufant, M.D., secretary.

RICHLAND

Mrs. C. E. Hunter and Mrs. C. R. Keller were hostesses for a dessert-luncheon meeting of the Woman's Auxiliary to the Richland County Medical Society, April 5, at the Woman's Club, Mansfield.—News clipping.

WAYNE

Lieut. Commander B. A. Woodworth, surgeon of the Naval Cadet Unit at Wooster College, spoke on "The Duties of a Medical Officer in the United States Navy", at a meeting of the Wayne County Medical Society, April 28, at Wooster.—News clipping.

Do You Know - - -

George L. Coffinberry, Columbus, has been re-appointed a member of the State Industrial Commission for a six-year term beginning July 1. Mr. Coffinberry, for many years chief auditor on the commission's staff, was appointed to the commission last year to fill the post of Clarence Knisley, who resigned to seek the Democratic nomination for governor.

* * *

Because of the present emergency, the Office of War Information has decided that the Annual Reports of the Surgeon General of the U. S. Public Health Service will be discontinued for the duration of the war.

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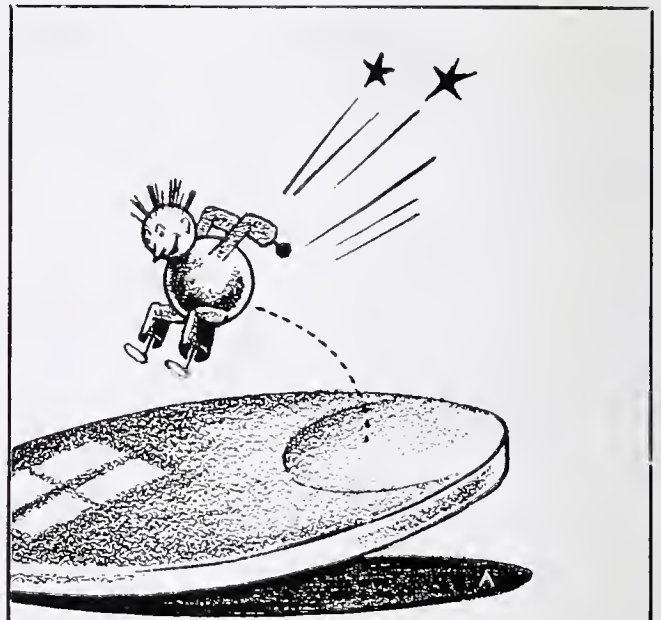
The Annual Postgraduate Day of the Mahoning County Medical Society which for 14 years has been one of the outstanding medical meetings in the state each Spring was a "casualty of the war" this year.

* * *

"Office hours as usual" was the schedule followed by Dr. A. Rhu, Marion, on his 94th birthday anniversary, April 5. Dean of the Marion County medical profession, Dr. Rhu is believed to be the oldest practicing physician in Ohio.

* * *

Traffic fatalities on rural state highways numbered 550 during 1942 as compared to 869 deaths in 1941. The 1942 death toll of 550 was below the death figure for any previous year since 1934. Traffic accidents on rural state roads in 1942 numbered 10,979 as compared to 16,268 for



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1941, a decrease of 32 per cent. The injury toll in 1942 accidents was 8,754 persons against 13,662 the year before, a 37 per cent reduction.

* * *

John M. Storm, associate editor and chief editorial writer of the *Cleveland News*, has been named managing editor of *Hospitals*. The editor is George P. Bugbee, executive secretary of the American Hospital Association, formerly superintendent of Cleveland City Hospital.

* * *

Maurice L. Tainter, M.D., professor of pharmacology, Stanford University, has been named research director of the Winthrop Chemical Company, Inc.

* * *

Dr. Charles A. Doan, professor of medicine, Ohio State University College of Medicine, has been elected a director-at-large of the National Tuberculosis Association. His term will expire in 1945.

* * *

J. D. Laux, Detroit, for four years associated with Michigan Medical Service, has resigned to accept a position as Senior Economist with the War Manpower Board, Washington, D.C.

* * *

A portrait of Dr. Elizabeth Campbell, Cincinnati, was unveiled at Christ Hospital recently. A member of the hospital's staff for 41 years, Dr. Campbell organized the Cincinnati Visiting Nurse Association in 1909, and 10 years ago established the Cincinnati Committee on Maternal Health. Last year she was given an honorary life membership in the American Social Hygiene Association.

* * *

The Army-Navy "E" award was recently presented to the M. & R. Dietetics Laboratories, Inc., Columbus.

* * *

Dr. Tom D. Spies, associate professor of medicine, University of Cincinnati College of Medicine, conducted an "Information Please" on nutritive problems at the Annual Meeting of the California Medical Association, May 2-3, at Los Angeles.

* * *

J. J. Brodbeck has been elected president of the Ciba Pharmaceutical Products, Inc., Summit, N. J. Mr. Brodbeck formerly served the company as executive vice president and general manager.

* * *

Dr. Myron D. Miller, Columbus, has been appointed tuberculosis controller of Franklin County. He will continue his duties as superintendent of the county tuberculosis hospital when he assumes the new position of controller July 1.

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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154. *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60.
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241. *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592.

The Physician's Bookshelf

Social Insurance and Allied Services by Sir William Beveridge (\$1.00, *MacMillan & Company, New York*) has produced a national planning project for post war Britain in an attempt to destroy want, disease, ignorance, squalor and idleness, a planning of insurance against economic insecurity of every kind. In view of Mrs. Roosevelt's visit to Beveridge and the recent plans submitted by the President to the Congress this book is of great interest to all of us, because if anybody gets hurt it will be the physicians. I think, therefore, that each of us should secure a copy of this report and study it with great earnestness to be ready to protect ourselves and our profession. The world does move on. There are wrongs to be corrected. There is, however, the danger that our planning is doing more harm than good.

Safe Deliverance by Frederick C. Irving, M.D. (\$3.00, *Houghton Mifflin Co., Boston*) is the fourth volume to receive the \$2500 "Life-in-America" award. It is the biography of a great obstetrician set in the history of a great institution, the Boston Lying-in Hospital which for more than a century has ministered to women in labor. The book reveals the brilliance, the wit, the charm and the humor of the Irving legend. For its kindness and its philosophy, every physician should read it whether he ever sees a pregnant woman or not.

Effects of Alcohol on the Individual, Volume One, Alcohol Addiction and Chronic Alcoholism by E. M. Jellinek (\$4.00, *Yale University Press*) presents an analysis of the literature on etiology and treatment of alcohol addiction and the mental and bodily diseases of chronic alcoholism. The purpose of the volume is to clarify the problems reviewed as a basis of future research and as a reference book. Its pages have been written by a group of distinguished scientists, members of the Scientific Committee of the Research Council on Problems of Alcohol, and stands as the book of reference.

Science in Progress (Third Series) Edited by George A. Baitzell, (\$3.00, *Yale University Press, New Haven, Conn.*) is the third volume of the Sigma Xi National Lectures. In this volume two outstanding astronomers, Harlow Shapley and Edwin Hubble, examine the galaxies and the inferences our most recent knowledge permits us to draw about the universe. Hans A. Bethe describes the carbon cycle which is responsible for the sun's energy. Percy Bridgman explains how he has been able to exert pressures of 6,000,000 pounds to the square inch and how great pressures alter substances. V. K. Zworykin talks of the electron microscope



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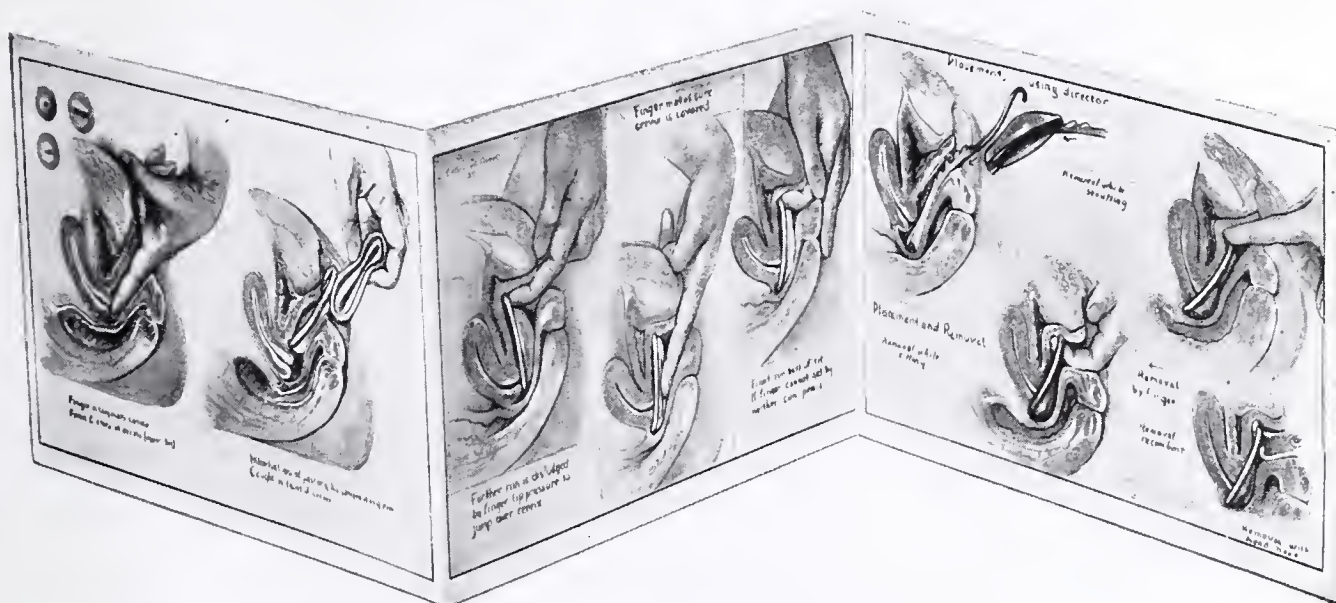
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Advances in Pediatrics edited by Adolph G. De Sanctis, M.D. (\$4.50 *Interscience Publishers, Inc., New York*) is an annual review of pediatric advances, but it is not a textbook nor is it a yearbook. It is a collection of personalized short monographs by outstanding authorities on such things as sinus disease, chemotherapy, Vitamin C, the premature infant, tuberculosis, endocrinology and many others. The book is definitely worthwhile.

Our Age of Unreason by Franz Alexander, M. D. (\$3.00, *J. B. Lippincott Company, New York*) turns the spotlight on human nature in our contemporary world, so that all may understand what the major psychological changes are contributing to mass action and social upheaval. It is definitely a major contribution to our thinking in these troubled times.

Mental Illness, a Guide for the Family by Edith M. Stern and Samuel W. Hamilton, M.D. (\$1.00, *The Commonwealth Fund*) is written for the thousands of anxious relatives in the hope that they will find practical guidance in its pages. When families are bewildered and overwrought by mental illness of loved ones, this concise guide-book will give understanding and encouragement. It can be purchased for a ridiculously low amount and your reviewer would recommend that physicians who have such people among their friends or patients should make them a gift of this helpful volume.

Noxious Gases and the Principles of Respiration Influencing Their Action by Yandell Henderson and Howard W. Haggard (\$3.50, Second Edition, *Rienhold Publishing Corporation, 333 W. Forty-Second St., New York, N.Y., U.S.A.*) is a monograph in a series of the American Chemical Society and deals with these gases as they occur in industry. Their use in war is not discussed. The book is written for practical use and information for all those who are dealing with these gases in industry; so that this is an important book in the library of industrial physicians, safety engineers and plant chemists.

Endoscopic Prostatic Surgery by Roger W. Barnes (\$6.00, *C. V. Mosby Company, St. Louis, Mo.*) presents a text for house surgeons and others who assist urologists and explains in detail the technique of the operation. It therefore becomes a book that is worth while to others who have not had too much training in this popular subject.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

July, 1943

No. 7

JONATHAN FORMAN, M.D., *Editor*

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Nutrition and Child Health

A. A. WEECH, M.D.

THE relationship between dietary lack of specific food substances and frank deficiency disease is now generally accepted. The relationship between moderate insufficiency of the same food substances and the so-called "subclinical deficiency state" is still viewed with skepticism by those who believe that such states, if they do exist, are of no great importance in determining health. In the war and famine ridden areas of Europe and Asia it may well be that the minor deficiencies must be overlooked because of the presence of greater evils. In this country neither the need nor the excuse for a restricted outlook exists. The goal must be set at a high level, a level which aims not only at the eradication of florid nutritional illness but which also seeks to attain from a wisely chosen diet the maximum in health, happiness, efficiency and longevity.

The bearing of nutrition on child health is broad and I cannot hope to touch upon all of the points. It will be necessary to restrict our attention to a few items worthy of signal consideration, items which say plainly that health and efficiency can be enhanced by better food even when there is no problem of eradicating outspoken deficiency disease.

The knowledge is old and well established that diets which are just adequate to prevent florid nutritional disease can quickly become inadequate in the face of intercurrent disease. Beriberi, night-blindness, keratomalacia and nutritional edema have at one time or another in history been looked upon as symptoms of dysentery because their manifestations appeared in association with the bloody flux. The association is not

The Author

● Dr. Weech, Cincinnati, is a graduate of Johns Hopkins University School of Medicine, 1921; member American Pediatric Society; Society for Pediatric Research; medical director, Children's Hospital and pediatric division, Cincinnati General Hospital; professor of pediatrics, University of Cincinnati College of Medicine.

merely historical record. Many of the patients whom I saw in Puerto Rico a year ago exhibited nutritional edema which had developed in connection with other acute illness. It is clear then that the diet must yield a margin of safety, a margin which easily repays its cost when efficiency and happiness are measured in terms of duration of incidental infection. These outbreaks, however, relate to diets which according to all modern standards are far below optimal requirements. The dangers which they breed are well known. We are interested today in knowing whether better diets should be made still better and, if so, what the reward will be.

The first pertinent work to which I shall direct your attention emanates from Ebbs and his associates¹ in Toronto. These investigators have studied the influence of the diet during pregnancy on the mother and on the health of the infant during the early months of life. Diet records were obtained from 380 women who had not reached the sixth month of pregnancy. On the basis of the records the women were divided into two groups, those on a good diet and those on a poor diet. Arrangements were made to

From the B. K. Rachford Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati.
Submitted March 3, 1943.

supplement the diets of a part of those in the poor group by sending to the home milk, eggs, oranges, tomatoes, cheese, dried wheat germ with iron, and viosterol. There were thus three groups of women: those on a poor diet; those in whom the poor diet was supplemented to good; those on a good diet. I shall have to pass over the benefits experienced by the mothers who received the better diets. Our concern today is with the child. Observations have been published on the first 250 babies followed to the age of six months. There is no evidence that the type of diet influenced the birth weight but at the age of six months the infants born to mothers on the better diets were heavier than those in the poor diet group. This was true in spite of the fact that the diet supplements were continued for only four weeks after discharge from the hospital. Of greater practical importance, however, are the data which are reproduced in Table I. These data summarize the health records of the infants during the first six

ILLNESSES RECORDED FROM BIRTH
TO SIX MONTHS

	Poor diet percentage	Supplemented percentage	Good diet percentage
Pneumonia	5.5	1.5	0.9
Bronchitis	4.2	1.5	5.7
Frequent colds	21.0	4.7	4.7
Otitis media	1.4	1.5	4.7
Anaemia	25.0	9.4	17.1
Dystrophy	7.0	1.5	0
Rickets	5.5	0	0.9
Tetany of newborn ..	4.2	0	0

Table I. From Ebbs, Brown, Tisdall, Moyle, and Bell, *Canad. Med. Assoc. J.*, 1942, 46:6.

months of life. The poor diet during pregnancy is associated with a higher incidence in the infant of pneumonia, bronchitis, colds, anemia, dystrophy, rickets and tetany.

So much for a challenging study by our Canadian colleagues in Toronto. It will be observed that specific dietary factors were not incriminated, that the poor and good diets were poor and good in not one but in a number of dietary essentials. An effect tangible in terms of infant health was obtained by means of dietary supplements devised on the basis of all accumulated knowledge of dietary essentials.

Let us look at data which Coburn and his associates² have been assembling in New York in connection with their studies of rheumatic fever. In one phase of this work Coburn was led to collect and analyze the dietary records of 50 rheumatic children. Twenty-five of these children had suffered at least one severe attack of rheumatism with cardiac involvement early in life but they had been free from attacks for many years. The other 25 children had experienced repeated attacks over the intervening years. All of the patients were under regular observation in the out-patient clinic and all were free from

“active” disease at the time the dietary records were obtained. The records were subsequently analyzed to determine what the diets provided in calories and protein, in calcium, phosphorus and iron, in vitamins A, B, C, D and G. Significant associations were found between susceptibility to recurrent attacks and a number of the dietary essentials.

Diets low in one essential were so frequently low in several essentials as to preclude evaluation of the relative importance of single factors. The data in Table II which show the association between susceptibility and combined dietary deficits in protein and vitamin A are illustrative only and not intended to convey the impression that these factors are either more or less important than other factors. Estimates of the dietary level of each constituent on the basis of published standards are not used in this part of the analysis. Rather the different amounts actually ingested by the 50 children were divided at the median amount so that half of the children taking a smaller amount of the constituent could be separated from the other half who took a larger amount. On this basis there were 32 children who were above or below the median levels with respect to both protein and vitamin A. Table II shows that among 16 rheumatic children with relatively high intakes of these essentials there were only three who exhibited recurrent activity. In contrast, among the 16 rheumatic children with relatively low intakes there were 14 who had experienced repeated attacks.

The evidence, just reviewed, that susceptibility to infection can be modified by diet is of number one importance in consideration of child health.

DIET AND RECURRENT ACTIVITY IN
RHEUMATIC SUBJECTS

Vitamin A and Protein in Diet	Less susceptible subjects	More susceptible subjects	Total
Above median in both items	13	3	16
Below median in both items	2	14	16
Total	15	17	32

Chi-square (after Yates' correction) = 12.5
P = 0.0005

Table II. Data collected by Coburn and associates on the relation between diet and susceptibility to rheumatic fever.

Because this is so, it is worth while to look briefly at confirming results from the field of animal experimentation. Sabin³ in Cincinnati has recently demonstrated that the susceptibility of young mice to encephalitis can be increased significantly by inadequate feeding. This susceptibility to infection was heightened by the absence from the diet of such specific substances as thiamin or riboflavin but was even more striking when the diet, though rich in vitamins, was

fed in quantitatively inadequate amounts. There was thus a striking relation between resistance to infection and gain in weight. The well-nourished mice were completely resistant to paralysis after the age of five weeks; in contrast 90 per cent of underfed mice at the age of eight weeks were still susceptible. Of particular interest to all of us who are concerned with child health is Sabin's observation that the same dietary deficiencies which prevented or retarded the appearance of resistance have failed to break it down once it had become established in full-grown animals.

RELATION BETWEEN DIET AND RESISTANCE TO INFECTION

These observations from Toronto, New York and Cincinnati support one another in establishing a relation between diet and resistance to infection. They are peculiarly important because they point the way along a path of new understanding after years of controversy concerning the specific role in immunity of vitamin A and vitamin C. Both of these deficiencies, when present to the point of outspoken deficiency disease, result in damage to tissues which normally prevent the entry of microorganisms into the body. At the moment, however, we are dealing with degrees of deficiency which do not yield such lesions. And the evidence that either vitamin A or vitamin C is concerned directly in the mechanism of immune reactions remains unconvincing. In recent careful work at New York University⁴ neither of these deficiencies was found to affect the immune bodies of blood or nasal secretions which inactivate influenza virus, the activity of lysozyme in nasal secretions, the titer of complement in blood serum, the phagocytic activity of leucocytes. The cause of health and good nutrition will ultimately be furthered if, until more convincing evidence has appeared, we restrain ourselves from ascribing to these vitamins a specific role in raising resistance to infection. The part of wisdom is to regard them, like other nutritional essentials, as necessary components of the well-selected diet.

The demonstrable relation between nutrition and resistance is therefore broad; it appears to depend more on quantitative and qualitative adequacy of the entire diet than on single specific items. The need for greater knowledge is evident—greater knowledge of the role of the specific factors, greater knowledge of the age period when nutritive lack is most significant, greater knowledge of the relation between diet and resistance to particular microorganisms as well as to other types of noxious agents. In the dog, the mouse and the rabbit it has been demonstrated that the resistance of certain organs of the body, particularly the liver, to a number of poisons can be modified greatly by the state of

nutrition. Whipple and his associates⁵ have shown that protein and to some extent sugar exert a striking effect in minimizing the toxic action of chloroform on the liver of the dog. Goldschmidt and his collaborators⁶ have reported similar results for mice. Whipple notes that young animals and presumably children are more susceptible than adults. Messinger and Hawkins⁷ have demonstrated in dogs a similar effect of diet in modifying the liver injury which follows arsphenamine administration.

Finally Von Glahn and Flinn⁸ have shown in rabbits that the hepatic cirrhosis produced by lead arsenate is reduced when yeast is added to a diet which seemed to be adequate for unpoisoned animals. This observation merits attention because of the wide use of lead arsenate in agriculture as an insecticide. Experiments of this type which embrace several animal species and several noxious agents undoubtedly have their counterpart in the human under naturally-occurring conditions. But we cannot discern from them just what diets and what nutritional states are productive of maximal human resistance to organic poisons. Until the time when clinical records have supplied the missing knowledge, it is necessary to proceed on the reasonable assumption that diets replete in all essential factors will afford greater protection than those which are not.

The argument so far has attempted to develop a single practical thought. Good food, better food than is needed to prevent florid nutritional illness, can enhance the ability of the body to ward off the harmful effects of certain infections and poisons. There is thus an immediate relation between diet and health, happiness, efficiency, longevity. The increased efficiency is, on the basis of the evidence given, the direct consequence of preventing loss of time through illness. Before closing, therefore, I shall cite a stimulating investigation which suggests a more intimate association between diet and physical efficiency.

DIET AND PHYSICAL EFFICIENCY

Jokl and Cluver⁹ in South Africa have been concerned with evaluating for their government the factors responsible for physical efficiency as divorced from defect and disease. Physical efficiency is regarded as having three components—strength, skill and endurance. It was measured by having the subjects run 100 yards, put the 10-pound iron shot and cover the relatively long distance of 600 yards. More than twenty thousand individual tests have been made in children between 5 and 20 years of age. The tests have permitted comparison between children from poor homes and those from economically better situated homes. In the former group the diet was composed mainly of maize, bread, potatoes, only small quantities of meat and still smaller amounts

of dairy products. Fair amounts of fresh fruit and vegetables were available. In the latter group the diet furnished satisfactory proportions of meat, dairy products, fresh fruit and vegetables. The authors note that among the younger children there was no difference in physical efficiency between the two groups. After puberty, however, there was a striking difference. The "poor" children dropped considerably behind the "rich" children in their standards of performance. These observations from South Africa are not of the type which can satisfy the skeptic seeking exact proof; on the basis of the published evidence it is not possible to separate nutritional from other environmental causes of physical inefficiency in the poor pubescent children. The study nevertheless merits attention on the basis of its objective alone. Physical efficiency is closely related to happiness and, because for many individuals it becomes ultimately the basis of earning power, it comes indirectly to influence health and even longevity.

The items considered in this brief paper represent the ultimate objectives of the fuller nutritional life in childhood. They are objectives which cannot be reached through diet alone but toward them the diet can make substantial contributions. The discussion has purposely neglected such problems as the importance of maintaining maximum or even adequate blood levels of essential dietary factors, the meaning of such things as the 24-hour excretion of thiamin or riboflavin, the significance of degrees of rickets which are demonstrable only by X-ray. These things undoubtedly are important. They form an essential step toward the necessary end of establishing measuring rods whereby nutrition can be assessed. But, there is also need for care lest in seeking more and better measuring tools we become fascinated with the tools themselves and forget the purpose for which they were devised. It is for this reason that I have chosen here to write of diet and its ultimate objectives—health, happiness, efficiency, longevity.

SUMMARY

Our efforts toward improving the nutrition of the child may rightly go beyond the prevention of recognizable deficiency disease and aim toward assembling in his behalf all available knowledge of dietary essentials. The reward can be visualized in terms of increased health, happiness, efficiency, and longevity. The effect of better nutrition in enhancing resistance to infection is of paramount importance in this connection. The evidence does not justify attaching special immunologic importance to vitamins A and C but it does suggest the significant value of a diet which is quantitatively and qualitatively adequate in all nutritional essentials. Data from animal experiments indicate that the fully adequate diet can

also aid the body in withstanding the toxic action of a number of organic poisons. Even when there is no question of preventing illness, there is reason to believe that a richer nutritional life will be associated with greater strength, skill and endurance in the performance of physical tasks.

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Brucellosis

For skin tests I use 0.1 cc. of a 1-5 dilution of stock vaccine containing one thousand million each *Brucella abortus* and *Brucella suis* organisms per cc. One hundred twenty-four patients with suggestive histories have been tested. Of these, 70 (56.4 per cent) gave positive reactions. Of this group of 70, 51 (41.2 per cent of the entire group) were considered to have active brucellosis. In addition, two of the group which showed negative skin reactions were also treated as active cases. In all, 53 patients (42.8 per cent of the entire group tested) were given treatment for brucellosis. This incidence of positive skin reactions compares favorably with statistics reported from other sections of the country. Kirby and Rantz report 36 per cent positive skin tests in 50 cases. Goss found 52 positive among 280 patients tested. Gould and Huddleson had 10 per cent positives in 8,124 cases tested in a state hospital. Manchester showed 38 per cent positives. Foshay shows the remarkable variation in positive tests in various parts of the country in reporting work which he and Dr. R. M. Calder did. Working in Cincinnati, Foshay found 8 per cent active undulant fever cases in 100 patients tested, while Calder, in San Antonio, found 91 per cent positive in a similar group of 100.—Dan L. Urschel, M.D., Mentone, Ind. *Jour. Ind. S.M.A.*, Vol. 36, No. 6, June, 1943.

Industrial Absenteeism—Its Medical Phase

R. FRANKLIN JUKES, M.D.

AN important and controversial subject closely related to our war effort is industrial time loss from absenteeism. This matter is being currently investigated by several federal agencies. It seems that a number of causative factors are involved. Due to high wages the rising affluence of the average worker in war industry tends to make him relatively independent, so that he can take a few days off on slight excuse without being pinched financially. This and other causes are being reviewed and already legislation is being discussed to force men to remain on the job. In the sometimes bitter debates on this subject an important factor related to absenteeism from work seems to me to be passing relatively unrecognized and certainly is not given the consideration it deserves.

For the past 15 years, in the course of the practice of medicine in a fairly typical mid-western industrial city, I have had occasion to observe the trend of fluctuating working conditions on the general physical and mental health of the factory population. During the past year I have been impressed by a marked increase in the number of patients presenting themselves for medical advice with a large variety of complaints due primarily to functional instability of the nervous system. This may be termed the "fatigue syndrome". These symptoms may reach a point where the patient will take the day off from work to come to the Clinic for a check-up. He feels that he is slipping and finds it increasingly difficult to continue working regularly. A fairly uniform pattern of events seems to lead up to this situation which I will briefly outline and will then illustrate by summarizing a few typical cases.

First I should state that, as in most industrial cities, the local factories have greatly increased their production to fit in with war contracts and that new industries and factories have been built. Thus the industrial population has grown, attracting to its ranks many men who are not used to factory work. Former automobile salesmen are typical additions, men whose previous employment was not particularly strenuous. Some of these men perhaps were formerly doing sales work because some inadequacy kept them out of more arduous occupations. Many in normal times would consider themselves too old for factory work. It must be recognized that such groups of men recruited for factory work are less liable to stand up well under stress and strain than regular factory employees. The large and increas-

The Author

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ing number of women now working in war industry represents a group in which the fatigue syndrome is even more prominent and with an even greater variety of clinical symptoms.

The average patient coming for medical advice gives a fairly typical history. Most have been working six or seven days a week for the past year with little or no vacation. They complain of fatiguability and exhaustion. They are tired when they get up in the morning. They often have to leave home early for work because of crowded bus and transportation conditions. Some have been unable to obtain housing reasonably close to their place of employment. They may have such symptoms as headache, dizziness and backache. They have begun to develop symptoms relative to the dysfunction of various organs. Some are heart conscious, many have various gastro-intestinal complaints. Functional breathing difficulty with tightness in the chest is common.

With these symptoms there is the usual anxiety neurosis, the fear that they may have heart disease, cancer, etc. Many have already stayed off work for a day or two at a time. With a short rest they feel better but the symptoms recur and get worse as time goes on. I notice too a trend in some to turn to alcohol for relief. A number of men have told me that after work they stop in and get a few drinks, this being the one thing that they have found to be helpful in relief of their symptoms. Some are already doing this to considerable excess, even to the point where they lose time from work due to alcoholism.

The seven day week is common among those who are foremen or are doing supervisory work and is apparently expected of them. The average worker who is on a seven day week is not required by management to do so, but is paid time and one-half for Sundays or overtime. With this incentive many have worked every day for over a year. I submit that the average man cannot do this and continue to feel well. Yet it is surprising that such a man will keep it up until he feels "sick" and will then come to the doctor

thinking that his uncomfortable symptoms are due to heart disease or to some other specific organic condition.

The following case histories are selected as typical of fifty such cases seen during the past three months. The patients were all studied adequately receiving a complete physical examination, routine laboratory examination of the blood and urine, and whatever special studies seemed indicated, such as electrocardiograms, X-ray studies of the chest and gastro-intestinal tract. In each instance of this series no evidence of organic disease was found.

Case I. F. H. Age 31. Chief Complaint, "heart trouble".

This man stated that yesterday evening just after supper he became nauseated and vomited. His heart seemed to be fluttering and he fainted in the bath-room. He thought that fainting was due to a weak heart. He stated further that over the past three months he had noticed progressive weakness and exhaustion. He felt tired when he got up in the morning. He complained of gas on the stomach, which seemed to crowd his heart.

On questioning it appeared that he had been working seven days a week continuously for the past 18 months. He was a toolmaker on an eight hour day and frequently worked nine or ten hours. On two occasions in the past month he had stayed off work for two days at a time because he felt "weak". After these short rests he felt temporarily better.

Case II. W. S. Age 40. Chief Complaint, "weakness".

This patient complained of being weak in the legs. He had "spells" when he would become light-headed, weak and would break out in a sweat. These attacks were not relieved by eating and bore no time relation to meals. He had been getting progressively nervous during the past two months and was completely exhausted at the end of the day. He had found that drinking wine made him feel better and relieved his nervous tension so that he could sleep. His wife stated that he was now drinking over a quart of wine daily.

This man had been on a seven day week for the past year on "piece work" where he had to work fast to keep up with the machine. His regular work week was six days but, since he got time-and-one-half for Sundays, he was working seven days. On several occasions lately he had stayed at home if he had a "weak spell" after breakfast. However, he would do this on week days because he made more money on Sundays.

Case III. M. M. Age 53. Chief Complaint, "shortness of breath".

This man stated that he had been having attacks of breathing difficulty lately, but during the past three days the dyspnea had been continuous. He exhibited a sighing type of respiration, not related to exertion. He was extremely nervous and was afraid something was wrong with his lungs.

This patient until one year ago was an automobile salesman. Ten years ago he had a small business of his own and following financial reverses had had a "nervous breakdown". After this he sold automobiles until he went to work in

a war plant one year ago. He was on a six day week but changed shifts each month. He could not get adjusted to working at night and had difficulty sleeping during the day. Sometimes if he had not slept, he would stay home from work and lately had been missing work frequently. The only thing that seemed to help his breathing was whiskey. Due to this he had been accused by his foreman of missing work because of intoxication.

DISCUSSION

It is true that there is nothing new about this symptom complex. Yet it is a factor to be reckoned with when remedial measures are sought in connection with the problem of industrial time loss from absenteeism. Without doubt many workers do not recognize this fatigue syndrome and there must be many cases where the symptoms impair the efficiency of the individual but are not sufficiently pronounced to cause him to seek medical advice.

Treatment must be individualized, but more rest and recreation is an essential factor. A thorough examination of the patient is necessary for convincing and adequate reassurance in order to allay anxiety neuroses.

SUMMARY

The role played by the fatigue syndrome in industrial absenteeism is discussed. The variable symptom complex is illustrated by typical case histories.

513 West Market Street.

The large movements of population because of the expansion of defense industries, the inadequacy of housing facilities in many parts of the country, and the accelerated work tempo demanded in many industries lead health officials in this country to expect an increase in the mortality of tuberculosis such as has been experienced in Great Britain. Last year there was a slight rise in tuberculosis mortality in New York City but in 1942 this increase appears to have halted. The number of deaths due to tuberculosis, however, is still so large that control measures should in no way be abated.—Bull. New York City Dept. of Health, Feb., 1943.

The last world conflict sent tuberculosis rates soaring in the nations of Europe and brought about a slight rise even in this country. Today increases are noted throughout Europe. We hope to prevent an increase in this country. There is still time to lay down an effective barrage which could prevent rise due to the war. Although we have no apparent increase yet, the circumstances of overcrowding, unsanitary living conditions, and undue fatigue are strikingly apparent to everyone—C. M. Sharp, M.D., U.S. Pub. Health Service.

History and Incidence of Rabies

E. R. SHAFFER, M.D.

RABIES is an acute infectious disease transmitted by the bite of an infected animal, and characterized by a condition of increased nervous system excitement, followed by paralysis.

ETIOLOGY

In ancient times it was quite well known that rabies was transmitted by the bite of a rabid animal and was shown that the causative agent was a virus and was contained in the saliva. It was further demonstrated that the virus was present in the salivary glands—especially the submaxillary glands—and in the central nervous system. Pasteur developed the method of prevention before very much was known about the virus.

It is now common knowledge that rabies virus belongs to a group of viruses which pass through fine bacterial filters and thus are known as “filterable virus”. Some of these viruses when transmitted from the animal in which they commonly occur, to another animal and carried through a number of passages in the animal will not produce disease when inoculated back into the animal from which they came, but will produce immunity to infection in the natural way. This characteristic of the rabies virus gives the names “street virus” and “fixed virus” as used by Pasteur and described by Whitemore.¹

The term “street virus” was used by Pasteur to designate the rabies virus that is transferred under natural conditions from dog to dog, from dog to man, or from dog to some other animal.

When this “street virus” is inoculated into rabbits, and is carried from rabbit to rabbit by subdural injection of material from the central nervous system, the virulence of the virus for the rabbit gradually increases, and the incubation time becomes shorter and finally becomes very nearly constant; that is, the “street virus” has become “fixed virus”. “Street virus”, injected subdurally into the rabbit, will kill the rabbit in about 18 days; as the virus from this rabbit is injected into another rabbit, and so on, the incubation time gradually shortens until the rabbit develops rabies regularly in eight days. This shortening of the incubation period means that the “fixed virus” produces a stronger toxin than does the “street virus” and in this way, the central nervous system becomes infectious in a shorter period of time following inoculation with “fixed virus” indicating higher virulence in the “fixed virus”.

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There are differences of opinion as to how the rabies virus becomes “fixed”. Suffice to say that for us, the great advantage of the “fixed virus” is that when injected subcutaneously in suitable doses, it is not infectious for man and it is far less infectious than “street virus” for dogs, monkeys, and other animals, and when so injected it produces immunity against infection with “street virus”. Efforts to return “fixed virus” to “street virus”, that is, reversing the process, always has met with failure, just as all attempts have failed to return smallpox vaccine virus to smallpox virus.

In the year 1903 we were given additional important knowledge of rabies virus. Remlinger demonstrated the filtrability of the virus and Negri discovered in the pyramidal cells of the central nervous system, the bodies that bear his name.

Negri bodies are round or oval bodies, varying greatly in size from one to 27 microhms in diameter—in the dog they are usually from four to ten microhms in diameter. The number of these bodies in a cell varies from one to six. The bodies are found in the ganglion cells in the central nervous system; because of the abundance of ganglion cells in (Ammon's Horn) the Negri bodies are most numerous there. They are also found in other nerve cells of the cerebellum, in the cerebral cortex, in all parts of the brain, and the nerve cells of the cord.

EPIDEMIOLOGY

Rabies is most commonly found in the dog, is sometimes called hydrophobia, and we find that history records the disease in the years B.C. Centuries passed without any progress being made to effectively deal with this disease. During the Ages many false ideas developed in the minds of people, and wherever the disease existed, there was confusion and serious misunderstanding.

Animals infected with rabies were believed to have a fear of water—hence the name “hydro-

¹Read before the Summit County Medical Society, March 2, 1943.

phobia". They cannot drink or eat because of paralysis of the muscles of the throat.

We are told that persons who were bitten by rabid animals were subjected to most inhuman treatment, and that the treatment was intentionally made severe so the victims of mad dog bites could not live. As late as 1810, Germany made a law which forbid, under pain of death, anyone maltreating an individual suffering from rabies. It was not until 1880 that careful research was undertaken to study the disease and especially to find a treatment to prevent it in both man and animal. The attempt was made by a Frenchman, Louis Pasteur, and he succeeded in perfecting a satisfactory treatment. As a scientist, he is called the Father of Bacteriology. After five years of experiment and research in animals he was finally forced to try his treatment on a human. It was on July 6, 1885, when he administered the first rabies vaccine to a small boy, nine years of age, and the treatment is credited to have saved the boy's life. The story relating to Pasteur's trial before and after he injected the boy, is indeed a thrilling one.

With slight modification of preparation, Pasteur's treatment is used today, and due to his untiring efforts, it is believed that the lives of many thousands of persons have been saved. The world today reveres the name of Pasteur, and he will always be honored by mankind as being among the immortals.

Just as misunderstanding existed regarding treatment control of this disease in ancient times, we have, even in this modern era, disbelievers who do not accept the scientific facts about rabies as they are known today.

When Pasteur's treatment was brought to this country, a number of places called Pasteur Institutes were established, and it was necessary for those to be treated, to travel long distances to these centers. In the course of time, however, it was found that the rabies material could be prepared in a manner which made it possible to ship it by mail, any place in the country. Consequently, practicing physicians are in a position to treat their patients with rabies vaccine in their home offices.

One reason why some individuals contend there is no such infection is because they claim that they have never seen a case of rabies in a human being. For their benefit, let us hope they never will be confronted with such an ordeal. Fortunately, the intelligent public is aware of the seriousness of this disease, and in the majority of localities the proper precautions are taken to hold the disease in check.

There is another fallacy commonly believed by many persons, and that is, that rabies is a seasonal disease, or that it only shows itself in the summer months through a definite period late in the summer, in plain language, called "dog

days". Both of these beliefs are without foundation or scientific proof. The records show that many outbreaks of rabies have occurred during the winter and cold months. It is true, of course, that through the summer or warm months, dogs and cats will be found running at large in greater numbers and if rabies is present in a locality, the difficulties encountered to stop the spread of the disease will be considerably increased.

SOURCE OF INFECTION

Practically all warm-blooded animals are susceptible to rabies infection, but the most common is the dog. Cats, horses, cattle, sheep, hogs, rats, squirrels, rabbits, foxes, skunks and many other animals and fowls can be included in the list. From its habits, the dog is the common transmitter of rabies to other animals and especially to man. This comes from the condition that the dog goes and comes as it pleases and comes into close contact with man.

The question is repeatedly asked as to the incubation period of the disease in man or animal, after either is bitten or exposed by an infected animal. The actual time it requires for the disease to show itself depends entirely upon the site of the infection in relation to proximity of the brain. In other words, if an animal is bitten in the lower extremities or body, it may require from three weeks to two months, while the animal bitten close to the head or near the brain may show the infection from 15 to 24 days. A definite answer on this point cannot be given, but in general, the average time in animals covers from 20 days to two months. It has been known to go as long as six months or one year in the extreme.

Rabies in animals is known to exist in two forms, a dumb or paralytic form, and a furious form. To the untrained, it would not be necessary to differentiate between the types in order to decide if an animal is showing illness. When an animal is suffering from the dumb form in the early stages of the disease, it is likely that no one would suspect anything abnormal, but as the disease progresses, there is noticeable a paralysis in the hind quarters. The dog tries to get under cover, the lower jaw drops down, and he is unable to close his mouth. At this stage it may seem the animal has something in its throat, probably a bone. In reality, it is an indication of paralysis of the muscles of the throat, and the animal cannot swallow. Many an owner and veterinarian has accidentally exposed himself when he would attempt to remove what he thought was a stick or bone from his dog's throat.

The furious form, also called "running rabies", is largely responsible for the spread of the disease. Dogs have been known to run many miles through counties and small towns, biting and injuring many other animals coming in their

paths. The furthest recorded distance is 40 miles. The afflicted animal does not stop at darkness, but continues on through the night. It not infrequently happens that an owner of stock finds at some future time that his horses, cows or other animals have been bitten by a rabid dog, probably during the night. Before the end of the second or third month he will have lost considerable stock. Dogs with furious rabies seldom return home because they run until they become exhausted and unable to travel further. At this stage, death soon overtakes them. The symptoms in this form through the last stages, also resembles those observed in dumb rabies. In the speaker's experience, death results for either animal or man within five or six days from the beginning of prodromal symptoms. There are recorded cases in animals that survived as long as 10 or 14 days. These are exceptions to the rule. (P. S. Subsequent to preparing this article, the author, in connection with a present rabies outbreak, observed one dog having "furious" rabies resulting in death on the 10th day from first symptoms. Diagnosis confirmed by laboratory report. Delayed death is believed due to low virulence of this particular strain of virus to which the animal was exposed).

When an animal is suspected of having rabies, it should not be killed. Instead, if possible, it should be captured and held in quarantine for a period of 14 days. If the animal is alive and well at the end of this period, most certainly rabies can be ruled out.

The question is often raised, whether or not milk from affected dairy cows may contain the virus! Transmission of the disease through the use of milk, i.e. by drinking the milk has never been reported in the literature. Remlinger of the Pasteur Institute of Paris, showed prior to 1935 that milk rarely, if ever, contained the virus even though the macerated mammary gland tissues of the cow dying from rabies may frequently show the presence of the virus. Treatment is rarely, if ever, given to an individual following the digestion of milk from a rabid dairy cow.

Individuals may question why physicians and health authorities appear to be so anxious about those exposed to this disease, and in order to dismiss any doubt in the minds of the skeptical, it should be said and impressed on the general public, that once rabies takes its course in man or animal, the case ends fatally. Animal or man has never been known to have recovered from actual rabies infection.

CONTROL MEASURES

There is no other disease known to public health officials that is so prevalent among animals and capable of being transmitted to man, that could be so effectively and quickly dealt

with, in fact actually stamped out, as is the case with rabies. We know the cause, the most common sources of infection to man, and with the aid of certain public measures, the trouble could be eliminated in a comparatively short space of time.

In Denmark, Norway, Sweden, Holland and Australia, rabies does not exist and England has twice rid itself of the disease. The answer really is simple. These countries demand absolute proof that dogs are free from infection before they gain entrance. "The net result", according to Shore,² "is that people in those places are never in danger of being infected with rabies".

The disease is found flourishing in countries like India and Russia and where civilization is retarded and poverty prevails. Yet with greater potentialities in the United States, no concerted national control measures are adopted to curb its spread. Hundreds of human lives and thousands of valuable animals are needlessly sacrificed to this disease at an expense of great human misery and millions of dollars.

Apparently, few persons realize this fact, however, in spite of the panic and hysteria that arises in any community at the first cry of "mad dog" a public opinion does not demand rigid enforcement of control measures to the extent of eradication of the disease. Instead, many among us literally obstruct and discourage the restriction or quarantine of their dog from a humane viewpoint; others join the anti-vivisectionist groups and spread opposition propaganda, thus sabotaging the sincere efforts of conscientious officials.

That rabies is not eradicated in the United States, is uncomplimentary, to say the least. The cause is the absence of 100 per cent cooperation of the public in enforcement measures. A quarantine of all dogs in the United States for six months to one year would permit all dogs having the disease or those exposed thereto, to develop the disease and die as a result of the disease and prevent further exposure. The problem is, how and when shall we secure such a program? The dog, allegedly "man's best friend", may be also man's worst enemy and the perpetrator of the greatest and most frequent cause of neighborhood dissensions or "tugs of war".

MODES OF TRANSMISSION

There is no evidence that rabies is transmitted in any other way than through the saliva of the infected animal—generally by a bite; at times by the rabid animal licking the hand of a person having abrasions or open lesions, the virus being licked into these lesions of the skin. There is no evidence that the virus is transmitted through the meat of an animal. Rochaix and Papacostas have shown that the virus will not pass through

the intestinal mucosa. The saliva of an animal may be infective as long as three to five days before symptoms develop. On the other hand, it is sometimes difficult to demonstrate the infectivity of the saliva of animals having positive rabies.

"Rabies virus has only recently been propagated successfully outside the living animal body. We now know, however,³ that a medium consisting of a physiological solution of inorganic salts plus glucose, to which 5 per cent mammalian serum and three drops of minced embryo mouse brain tissue are added per 5 cc., maintains the virus indefinitely if it is transferred every four days

of bites. Deep punctured or lacerated bites are more apt to transmit the virus than are crushing bites as from a horse or cow. Children are more susceptible than adults. Children from six to fifteen years old are more commonly bitten. Boys more often than girls, due to the habits of boys' greater degree of exposure on the playgrounds and on the streets and highways. Other factors in the incidence of rabies in man is the virulence of virus, the depth, size, number and location of bites.

The following table is of interest and shows the degree of susceptibility and distribution among domestic and wild animals observed.

TABLE No. I
RABIES IN ANIMALS
OHIO
RABIES SURVEY 1938-1942 INCL.

	1938		1939		1940		1941		1942	
	Recd.	Pos.	Recd.	Pos.	Recd.	Pos.	Recd.	Pos.	Recd.	Pos.
Dogs	751	339	614	272	1017	473	874	421	696	340
Cats	67	12	70	8	82	14	83	6	104	8
Hogs	11	2	7	0	32	2	34	4	10	0
Cows	81	29	38	14	99	46	80	21	55	27
Horses	3	3	5	1	11	0	10	1	11	0
Sheep	11	6	9	2	13	3	17	11	6	4
Goats	0	0	3	0	1	1	0	0	1	1
Mules	0	0	0	0	0	0	3	0	-	-
Rats and Mice	4	0	10	0	5	0	4	0	10	0
Rabbits	0	0	1	0	7	0	1	0	2	0
Squirrels	3	0	5	0	4	0	5	1	6	0
*Skunk	1	0	2	1	6	4	12	10	2	2
*Fox	0	0	7	7	21	15	17	9	15	6
Ground Hog	1	0	0	0	1	0	0	0	1	0
Mole	1	0	0	0	0	0	0	0	0	0
Bear	0	0	1	0	0	0	1	1	1	0
Muskrat	0	0	1	0	0	0	0	0	0	0
Bobcat	0	0	1	0	0	0	0	0	0	0
Coon	0	0	0	0	1	0	0	0	0	0
Mink	0	0	0	0	1	0	1	0	0	0
Chipmunk	0	0	0	0	3	0	1	0	1	0
Ferret	0	0	0	0	1	0	0	0	0	0
Bat	0	0	0	0	2	1	0	0	0	0
Weasel	0	0	0	0	0	0	1	0	0	0
Wood Chuck	0	0	0	0	0	0	1	0	0	0
Guinea Pig	0	0	0	0	0	0	1	0	0	0
	934	391	774	305	1307	559	1146	485	920	388

The above table was furnished by the courtesy of the Ohio Department of Health.

*It is of special interest to note an epidemic of rabies in wild fox as indicated by the incidence of specimens found positive for rabies which was precipitated in 1939 and continued and included 1942. It is believed that these cases occurred primarily in one country in the southern part of the State.

**This is of further interest when associated with the positive laboratory reports for skunks, primarily in an adjoining county to that in which the wild fox was infected. Both outbreaks started as of 1929.

and induces multiplication to the extent that 1/33,000 cc. produces rabies regularly when injected intracerebrally into W-Swiss mice."

SUSCEPTIBILITY

Susceptibility to rabies varies in different animals. In the lower animals and fowls, it is believed that 40 to 70 per cent are susceptible while man is much less susceptible. Under natural conditions, 80 to 85 per cent of dogs develop furious rabies, and 15 to 20 per cent develop paralytic or dumb rabies. It is believed that not more than 25 per cent of persons are susceptible to rabies. The danger of infections depends a great deal on the number and severity

RABIES IN MAN

The forms and stages of rabies in man are the same as those in dogs, except that the furious form is represented by a spasmodic form. In the prodromal stage, there may be neuralgic pains in various parts of the body. The patient has headache, and loss of appetite. The important symptoms are psychic in nature: the patient is depressed and anxious, and cannot sleep. The voice is often changed, especially in children.

At times the symptoms set in suddenly, without prodromals in the form of excitement. Spasm of the muscles of deglutition is the first characteristic symptom, making it impossible to drink water and giving the feeling of something in the

throat. This spasm of the muscles of deglutition is a prominent feature throughout the course of the disease; and the patient early develops the fear of trying to drink on account of the painful spasms in the throat—hence the name “hydrophobia”. The irritability increases until the slightest stimulus, as the sight or mention of water, a draft of air, a noise, a bright light, or even a touch, or a movement by another person in the room brings on a severe spasm of the muscles of the throat.

Just as in dogs, the slightest motion of its cage, the pointing of a stick or other object at the animal, will stimulate a severe spasm of attacking its cage or objects within reach; a human case responds to similar stimuli. These spasms do not last for more than a half or three-quarters of an hour. Following the spasms of the muscles of deglutition the spasms spread to include other groups of muscles, as those of respiration or general convulsions. Spasms of respiration comes on early and there is precordial distress. The special senses are hyperesthetic. It is possible to see the spasm of the muscles in the throat and a little saliva or mucous is frequently expelled from the lips as a result of these spasms. The peculiar sound that has been likened to the barking of a dog is due to the spasm of the muscles of the larynx. There is dyspnea and the patient may die in one of these attacks.

The spasm of the muscles extending to the muscles of the jaw, give rise to the peculiar chewing and snapping movements that have been considered to resemble the biting movements of a rabid dog. The abundant salivary secretions may be churned to a froth by the jaw muscles.

There is great anxiety, which may be increased to a type of mania, with delusions and hallucinations. In this condition the patient shudders, springs from bed, and rushes about the room; clutches at his throat; grovels on the floor, and when restrained, begs to be allowed to go.

Between attacks, the patient is quiet and his mind clear; though there is great anxiety. Even during the attacks the patient is conscious and tries to avoid injury to those who are caring for him.

There is fever of 100° to 107° F. and high terminal temperature may occur, nausea and vomiting are common; the vomits frequently stained with blood. In the beginning, the pulse is full and bounding, but later it becomes weak and rapid, especially during spasmodic attacks. The urine is decreased in amount, possibly due to absence of liquid intake, and high temperature, and does not contain albumin; but may contain sugar.

The patient may die suddenly in a convulsion or from asphyxia during one of the spasmodic attacks or the attacks may become more frequent

and the patient dies from exhaustion or as is commonly the case, pass on in the paralytic stage.

DURATION

The prodromal stage may last three or four days, or it may be entirely absent. The stage of excitement lasts from one to four days; usually two or three days. Death is frequent in this stage from apoplexy, in a convulsion, or from asphyxia suddenly or after a short period of agony. The paralytic stage does not last over two to eighteen hours, and death is in coma. The average duration of the disease from the time the spasms of the throat set in, is two to three days.

PARALYTIC OR DUMB RABIES

Just as with the dog, the prodromal stage and the stage of excitement may be very short, and the paralytic symptoms predominate from the start. Children and persons severely bitten seem more liable to develop paralytic or dumb rabies.

DIAGNOSIS

The mortality in human rabies is 100 per cent, but it is possible to prevent development of rabies in man in over 95 per cent of the cases by prophylactic inoculation after the person is bitten. This indicates the great importance of prompt diagnosis of rabies in animals; the dog being the animal that is all important in transmission of rabies in man.

In man, the diagnosis must be made from the history and clinical picture. A history of having been bitten by a dog or other susceptible animal, especially if a stray dog, together with irritation at the site of the bite is strong indications of rabies, but one must be on guard against lassophobia—in the latter case, the stigmata of hysteria are present. Tetanus, delirium tremens and drug poisoning need only to be kept in mind to differentiate. There is an early leucocytosis in rabies.² Negri bodies are found in the brain of man in about 40 per cent of the cases, as it frequently is necessary to inoculate animals to make postmortem diagnosis.

For the purpose of this paper, it is not necessary to review the diagnosis of rabies in animals, especially the dog. Suffice to say, this is definitely made by the laboratory and not from clinical findings. In all face bites or injuries above the clavical, anti-rabic prophylaxis should be administered at once in every case, pending the laboratory findings, when specimen is available or in case of stray animals.

TREATMENT

The prophylactic treatment of man consists of local treatment of the wound and general treatment in the form of immunization against rabies.

The wound should always be treated as a positive exposure, unless it is immediately evident that the animal did not have rabies, since it is

not possible to wait until it can be determined that the dog was not rabid before treating the wound.

The wound should be opened freely and all shreds of torn tissue trimmed away and thoroughly cleaned with antiseptic solution. The wound should be encouraged to bleed. Of great importance is a thorough cauterization with either nitric acid, as recommended by many authorities; however, Cummings and others recommend using formaldehyde. The efficiency of nitric acid and formaldehyde in destroying rabies virus must outweigh the objections to their use on account of the pain produced by them. A simple dressing should be applied.

The question of administering anti-rabic vaccine depends upon the circumstances under which the person was bitten.

CASE HISTORIES

The incidence of human rabies in the State of Ohio for the 26 year period, 1915-1942, Ohio had 110 cases of human rabies, all of whom resulted fatally. During the last ten year period, Summit County had four human deaths from rabies, and during the five year period, 1938-1942, Ohio has had 22 cases with 22 deaths in man. The following table shows their yearly distribution.

RABIES IN MAN
OHIO

TABLE No. II

	Cases	Deaths
1938	3	3
1939	5	5
1940	5	5
1941	4	4
1942	5	5
	22	22

Inasmuch as the speaker has had a modest experience by way of investigating five cases of human rabies in 1936, 1937 and 1942, a history of these cases might be of interest. Four cases occurred in male and one female with the ages of 13, 14, 12, 4 and 8 years respectively.

Case No. 1. R. C. S., age 13, North Industry, Stark County, bitten on upper lip December 23, 1935. Received first antirabic treatment December 29, course of 21 injections ending January 19, 1936. Boy first showed symptoms on May 14, 1936. Attended school on May 15, 1936, and admitted to hospital in Canton May 18. "Symptoms mainly those of delirium accompanied by restlessness which at times required mild restraint. He died May 20." Brain embalmed with formaldehyde, submitted to the Ohio Department of Health Laboratories—microscopical examination showed Negri bodies.

(Note: Lip bite, treatment started six days after exposure. Unusual incubation period in case of face bite of 4 months and 22 days.)

One adult was bitten by same dog on right forearm. She received 14 doses of antirabic

treatment. The boy and adult with definite bites received no local cautery.

Also, three other persons were scratched by same dog and received 14 dose treatments. No further complications or unfavorable reports received.

The head of the biting dog was received at the Ohio Department of Health Laboratories on December 26, 1935, and reported positive by telegraph the same date.

Six nurses and two internes probably exposed while treating or handling boy in hospital. Victim able to play baseball day before symptoms developed. Used his saliva on ball and bat, as a result ten of the boys who were exposed by handling the ball and bat were given Pasteur treatment in addition to nurses and internes.

Case No. 2. A. B., male, age 14, Stoutsville, Fairfield County, bitten on upper lip and leg December 31, 1936. Site of bites cauterized and lip wound closed with one suture. First antirabic treatment administered on January 4, 1937, and completed with 14 doses. On February 10, boy became ill, family physician saw patient on February 13, and found him in a highly nervous condition. "On attempting to swallow water, spasm of muscles prevented and threw him into convulsive state. He was brought to Lancaster Hospital in afternoon of February 13 and died the morning of February 14." Head of biting dog received and reported positive by the Ohio Department of Health Laboratories on January 2, 1937.

(Note: Lip injury—treatment started fourth day after exposure. Incubation period 1 month and 11 days).

Case No. 3. R. S., male, age 12, Columbus, Franklin County (first human case in this county since 1911). Deep bite upper lip inflicted by stray dog February 19, 1937. (Local cautery not recorded in history). First antirabic treatment administered February 21, 1937, and carried through until 21 given. Onset of symptoms March 8, 1937, patient nauseated and vomiting, March 11 frantic at sight of water. Clinical diagnosis of rabies. Died March 12, 1937.

(Note: Lip bite—treatment started on second day after exposure. Incubation period 21 days).

Examination of boy's brain in Departmental Laboratories showed microscopical evidence of Negri bodies. Biting dog found dead few days after February 19, but head not submitted to the Ohio Department of Health Laboratories for examination.

Case No. 4. B. J. B., boy age 4, Loyal Oak, Summit County (fourth human death in county) bitten 11 A.M. May 11, 1942. Deep lacerated lower left eye lid and upper left lip. Laceration by dog having furious rabies. Wounds mildly cauterized due to sensitive location, wounds closed by several sutures. First dose of antirabic treatment given within six hours after injury. First six doses administered two in 24 hours, followed with remainder of 14 doses every 24 hours.

First spasmodic symptom developed on May 30, twenty-first day following exposure. Hospitalized at Citizens Hospital, Barberton, Ohio. He died in convulsion and coma four days after first symptom.

Head of biting dog shipped same day of bite, May 11, 1942, to Ohio Department of Health Laboratory. Telegraphic report May 12, confirming positive for rabies. Three other persons

handling child and exposed to child's saliva were given antirabic treatment, none of whom developed the disease.

Case No. 5 (as reported by Dr. Stamp). C.L.C., female, age 8, Stark County, bitten by rabid dog May 17, 1942. Started with antirabic treatment second day following bite, 14 doses phenol killed vaccine administered, last dose on June 1. First showing symptom of rabies on June 20, spitting mucus, spasms of throat, progressively worse. Seen by physician first on June 22. Regular spasms of throat, running about frantically gasping for breath and having mucus foam running from mouth. Her condition became progressively worse and hospitalized where several doctors were called in consultation on the twenty-fourth. Patient was violent up to time of death. Morphine nor other sedation was ineffective. Post-mortem was done and revealed emphysema of both lungs. Brain was sent to Ohio Department of Health Laboratory and showed presence of Negri bodies. (Incubation period 1 month and 4 days).

The question of whether or not to administer 21 doses, particularly in face bites when a person has been bitten by a known rabid animal, has frequently arisen in minds of clinicians. The speaker's personal experience has been that, 14 doses of potent anti-rabid vaccine is applicable to all cases and that he personally believes that 14 doses administered immediately following face bites, and not later than seven days following injuries other than face bites, would save every case that is humanly possible to save. Personally, I am of the opinion that the outcome of any case would not be altered by the administration of more than 14 doses.

Rabies prophylaxis is not 100 per cent efficient, any more than any other prophylaxis or cure of a disease is 100 per cent efficient. All face bites, and particularly face bites in children and more especially, bites through the mucous membrane carries with them a very grave prognosis, even when a potent treatment is used. I therefore am convinced that after a wound had received proper cauterization and had received proper local attention and the patient taken the 14 doses of treatment and had avoided undue exposure, fatigue and excitement during the treatment, or perhaps better still, during the first week of the incubation period until immunity was fully established, would comprise all that could possibly have been done to protect a patient.

MECHANISM OF IMMUNITY

"Fixed virus" injected into man is killed before it reaches the central nervous system and the organisms being broken up act as an antigen and lead to the development of rabicidal substances which circulate in the serum of the vaccinated person. There is undoubtedly a tissue immunity, as is found in other immunity reactions.

The antirabic vaccine most commonly used during this era, is a modified Pasteur formula. The

prevailing method of preparation by commercial houses is either the modified living, through attenuated "fixed virus" as modified by Harris et al., or another, more recent contains presumably a phenol killed virus (Simple et al.) and is rapidly replacing the original Pasteur product. While the results with the killed virus are so good in practice that we must suppose the immunity developed by the dead virus, while probably not as high as that produced by the living virus, is high enough to protect against the usual dose of virus inoculated by the ordinary bite.

Sellards⁴ as reported in *The New England Journal of Medicine*, 1937, made the following observation: "In the treatment of rabies there is a very radical departure from the technique of Pasteur, perhaps too radical, namely the use of killed virus, as commonly employed in this country. Regardless of the type of treatment, the mortality rates are extremely low (about 0.25 to 0.5 per cent) and the decision concerning the treatment of choice may very likely have to be reached in some way other than by the statistical method.

"In the meantime, when one sees or hears of a few patients treated with killed virus and subsequently rabies develops, it might make one wish that one had used some form of the original Pasteur treatment. Living virus represents the conservative form of treatment and the use of dead virus is rather radical. The procedure of choice may ultimately prove to be some form of combined treatment".

In spite of the fact that present rabies prophylaxis is not all that we may hope for, the mortality rate of treated exposed persons remains low. Denison, McAlpine and Gill⁵ in a report of rabies deaths in Alabama for the period 1922-1930 comprising 34,864 persons, there were 21 fatalities, or a mortality rate of 0.06 per cent, whereas 21 persons exposed to rabies and did not have treatment, died. These rates compare most favorably with those given by McKendrick in a summation of six analytical reviews for the League of Nations, reports a mortality of 0.38 per cent among 78,400 treated with dried or glycerinated cords, and a mortality of 0.61 per cent among 233,488 treated with phenol killed vaccine.

TREATMENT OF PARALYSIS

Reactions following treatment are usually of no importance, occasionally (1 in 3000 according to the experience of Childs⁶ of Ohio) treatment paralysis is encountered. The area, preferred by some clinicians, between the shoulder blades, seems to be the site of choice. Others prefer the abdominal area. This area affords greater space and circular sites to be selected without much interference from muscular soreness as a result of the injection. Full size doses are usually given regardless of age; however,

one observer, Hodges,⁷ advocates one-half size doses to all children under four years of age.

Experience seems to authorize the full size dose in all ages, since it is common knowledge, that children tolerate well practically all biological medication.

In cases of apparent treatment paralysis, especially in adults, one must differentiate between true paralysis and lassophobia. It is sometimes observed that great anxiety, apprehension and continuous mental concentration, precipitates post treatment symptoms simulating neuritis, paralysis and loss of muscle tonicity. Appropriate treatment, commonly called for in such cases, usually results in complete recovery.

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Brucellosis has been likened to syphilis and tuberculosis in its protean manifestations and in its chronicity. One other comparison that bears comment is the need for extended therapy. Intelligent co-operation of patient and physician is absolutely necessary in the treatment of brucellosis, especially in its chronic phase. The patient must have a thorough understanding of his disease. He must know that it is an extremely chronic affair, for which we have no specific, quick acting therapy; that he may never achieve a complete cure; and that treatment must be continued regularly and systematically. Davis's remark that he never talks to the patient about a "cure" is certainly pertinent.—Dan L. Urschel, M.D., Mentone, Ind. Jour. Ind. S.M. A., Vol. 36, No. 6, June, 1943.

NASAL ALLERGY

PURE INFECTION CHRONIC SINUSITIS		ALLERGIC CHRONIC SINUSITIS
Comparative Frequency	30% (or less)	70% (or more)
Etiology	Anaerobic type of streptococcus	Infection with staph or strep secondary to chronic allergic edema with impaired drainage.
Onset	(a) Follows an abscessed upper molar tooth (b) Follows a severe upper respiratory infection such as scarlet fever	Insidious or may date from an ordinary head cold.
Sinuses Involved	Maxillary most often. Tends to be confined to one side of the nose.	Ethmoid sinus most often involved. Tends to be bilateral and to involve all of the sinuses more or less.
Nasal Mucosa	Unchanged except at the sinus ostium where it is inflamed and may be hypertrophied.	Same changes as in the sinuses: edema, polypoid changes, excessive secretion of mucous.
Symptoms	Minimal: scant post-nasal discharge. Occasional foul odor, rarely headaches. Systemic symptoms frequent: arthritis, neuritis, etc.	Maximal: nasal blocking, sneezing, coughing. Profuse muco-purulent nasal and post-nasal discharge. Headaches frequent and severe. Fatigue, lassitude and sometimes G.I. symptoms.
Histology of Sinus Mucosa	Epithelium normal. Subepithelial connective tissue slightly thickened with infiltration with plasma cells and polymorphonuclear leukocytes.	Epithelium desquamating, increased number of gobletcells, basement membrane thickened. Edema of subepithelial connective tissue, infiltrated with eosinophiles in addition to plasma cells and polymorphonuclear leukocytes.
Irrigation	Liquid pus, often very foul	Gelatinous or tenacious mucus.
Cytology of Pus	Neutrophiles only	Few to many eosinophiles mixed with the neutrophiles.
Treatment	Irrigations may effect a cure, but <i>ventilation</i> usually required by means of a window operation.	Remove the allergic factor and the infection tends to clear up, or responds rapidly to a few irrigations or to surgery.
Prognosis	Excellent. Once cleared does not recur.	Poor if allergic factor is untreated. Good if allergic factor is removed and the infection is treated simultaneously.

—George E. Shambaugh, Jr., M.D., Chicago; Jour. Mich. S.M.A., Vol. 42, No. 6, June, 1943.

The Diagnosis, Treatment and Prevention of Chigger Bites

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CHIGGERS are found, during the warmer months, all over the world, in the tropical and temperate zones, on mountains and in valleys, but especially near lakes and rivers. They have been found in the Alps at an altitude of 2812 meters, in the Himalayas and in the Andes. They have also been collected in the Netherlands and in other low lying districts. Various species have been reported from nearly all parts of Europe, the British Isles, India, China, Japan, the South Sea Islands, the Philippine Islands, Australia, Egypt, Africa, Madagascar, almost all of South and Central America, Mexico and the United States. In the United States they are common in the southern, southwestern and central states, and have been found as far north as New York, New Jersey, Pennsylvania, Ohio, Iowa, Wisconsin, Minnesota, Massachusetts, Maine, Montana and Wyoming, and they have been known to occur in California. I have collected them in northern Wisconsin and Michigan as well as in southern Ontario. They are plentiful around the small lakes in northern Indiana and southern Michigan, and are troublesome on the islands in Lake Erie and in suburban and rural districts of Ohio. They may be encountered in our own gardens, in vacant lots, in parks and around golf courses, as well as in wooded districts. They seem more plentiful during rainy seasons.

The chigger is a larva, or immature organism, with six legs; the adult has eight legs, like all spiders, and is harmless. Chiggers occur in certain areas, and seem to exist on low shrubs and grasses as well as on the ground. Investigators have found them in flower and vegetable gardens and in meadows, and even on fruit trees and frequently on berry bushes. They are temporary parasites on domestic animals, rodents, birds, certain reptiles and man. The list of hosts includes sheep, goats, cattle, dogs, house cats, monkeys, rabbits, squirrels, moles, rats, house and field mice, bats, hedgehogs, shrews, voles, opossums, tinamous, domestic fowl and certain ground-nesting birds, frogs, toads, salamanders, certain snakes, land turtles, insects and spiders. Perhaps man is not the best suited host, but at any rate he will do. Certain individuals, and the natives of certain districts, seem to be immune to their attacks.

When a person passes through a chigger infested area, they invade the skin and run at the rate

of about four inches (10. cm.) per minute, until they meet some obstruction, such as a garter, belt or other constriction in the clothing (although some are scattered elsewhere). They usually attach themselves within a few hours. As would be expected, the mites seem to prefer areas where the epidermis is thin and not toughened by trauma or exposure to the weather. Therefore, except in infants, they seldom attack the palms or soles and generally remain on parts covered by clothing. Generally, but not invariably, they attach themselves in the orifice of a hair follicle or sweat duct. One or more mites may be anchored at the orifice of a single follicle. They are too large to enter the follicle completely. They do not burrow in the skin, but merely pierce the outer horny layer of the epidermis with their sharp fore-claws (mandibular claws). Thus they are anchored firmly, the same as a tick, and are difficult to dislodge. An irritating salivary secretion flows from the mouth between the mandibular claws into the tiny wound in the host's epidermis. This secretion dissolves the epidermal cells, and the resulting fluid is then sucked up by the chigger as food. After a few hours the chigger is engorged and drops off, no longer a parasite, to continue its development into the mature eight-legged form.

As one would expect, chiggers usually invade the host from the ankles upward, and are most likely to become attached below the garters and below the belt, as well as about the genitalia. But if a person reclines on the ground he may be attacked from the neck downward, and this may also occur if one walks through high shrubs or sits on a bench in contact with shrubs. In this case there will be many bites scattered over the trunk, and especially just above the belt. The chigger is a minute red organism, barely visible to the naked eye and usually noticed only under a hand lens. As a rule one chigger inflicts one bite, and only one. The irritating salivary secretion sets up an inflammatory reaction around the bite, but this is a slow process, and the resultant itching papule does not appear for several hours. By that time, as a rule, the chigger has dropped off and gone its way engorged with food. The papule varies from the size of a large pinhead to that of a bean or small coin, and it may be hemorrhagic and may be surmounted by a small pinhead-sized blister. It lasts for a week or two. The itching is more or less intense, and usually worse on the second or third day; and of course scratching may change the picture completely and lead to secondary infection or to the development

Dr. Parkhurst was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

of hives. More chiggers may remain in the clothing and thus invade the skin later to produce new lesions.

DIAGNOSIS

As a rule there is not much difficulty in diagnosis. The bites of spiders or of flying insects, including mosquitoes, bees, wasps, black flies, sand flies, gnats and midges often bear some resemblance to the earlier stages of the chigger bite, but usually they are single, or at any rate less numerous than chigger bites, and are located on exposed parts rather than on covered areas; they are usually felt immediately and are seldom hemorrhagic. The bite of the common flea or that of the sand flea may also resemble the first stage of the lesion caused by chiggers. The sand flea usually attacks the feet and ankles, and some persons may be bitten by cat fleas and rat fleas in the same manner. Bedbug bites may sometimes cause confusion in diagnosis, but their central punctum and short duration facilitate differentiation. The possibility of confusing lesions due to the brown-tailed moth, tick bites and infestation with poultry itch must also be considered at times.

The eruption of grain itch resembles scabies more closely than chiggers; the lesions are more polymorphous and are not grouped at points where the clothing constricts the skin. Scabies complicated with hives may resemble chigger bites at times, but chiggers produce no burrows and are not likely to invade the hands. Dermatitis due to schistosomes, with pruritic papules becoming pustules, may be present about the ankles and legs of persons who have been wading in infested water such as certain small lakes of Michigan and Wisconsin. Urticaria and particularly prurigo mitis are generally not so intensely pruritic as lesions caused by chiggers; prurigo mitis seldom occurs in adults; the lesions are not hemorrhagic. Of course typical urticaria lesions may accompany chigger bites as a complication. The papular type of erythema multiforme may bear some resemblance to chigger bites, but the distribution and the intensity of pruritus are differential points. Nettling from some thorned plant might cause some confusion. A papular urticarial eruption due to grain dust may occur on covered parts of the body, but it is neither vesicular nor hemorrhagic, and more closely resembles scabies. It is useless to search for chiggers on the patient's skin as a rule, because they have all dropped off before the physician is consulted.

TREATMENT

In the treatment for chigger bites there are three objectives: (1) the destruction or removal of all remaining parasites, both free and attached; (2) the relief of the severe itching by palliative

measures; (3) the treatment or prevention of secondary infection. The mites, if any remain, are most readily removed by an application of benzene, kerosene or copper compound, followed by bathing for a half hour with plenty of soap lather; this should be followed by thorough rinsing with fresh water and patting dry rather than rubbing, with a towel. Since active mites may remain in infested clothing, it is advisable that all articles be boiled or sent to a dry cleaner.

Since the objective and subjective symptoms usually continue unabated for days after the parasite has been removed, the fulfillment of the second and third objectives is of the greatest importance. A variety of palliative measures has been suggested. I have found that brief applications of rubbing alcohol (alcohol 70 per cent) to the affected areas, followed immediately by a mild antiseptic antipruritic ointment, is satisfactory. A clean and generally effective application, in my experience, has been that of boric acid ointment U. S. P., to which may be added from 1 to 2 per cent of phenol, the strength of course being in inverse proportion to the area of skin to be covered, and 0.2 per cent of menthol. This ointment should be applied sparingly at least three times a day and also used as needed to relieve itching; it is to be rubbed in gently, and the remainder is wiped off with cotton. A little plain talc may then be dusted over the surface. Rubbing alcohol has been shown to have value as a parasitocide; it also helps to remove or prevent secondary infection and relieves itching, as do the phenol and menthol. The boric acid ointment is mild and helps to combat secondary infection, and the talc is cooling and protective. These applications are made after the daily bath and at least at two other times daily. Scratching must be prevented, and canvas gloves may have to be worn during sleep for this purpose. These measures fulfill both the second and third objectives as a rule. But if serious secondary infection has occurred, of course other measures may be used as indicated.

PREVENTION OF INFECTION

Infestation may be prevented by the use of protective clothing and by parasitocidal applications. One authority has found that puttees or high laced boots are effective barriers against the invaders, and has also advised the use of clothing materials of a sufficiently tight weave to prevent the mites from getting through the meshes of the cloth. Tightly fitting cuffs are recommended. Obviously in warm weather such clothing may be uncomfortable, and therefore most persons prefer to rely on parasitocidal applications.

Sulfur has long been recommended as a repellent. One investigator dusted it uniformly over the skin or into the clothing with a shaker, and found it effective. I have used it for several sea-

sons on myself and have prescribed it for others to apply before going into areas which were well known to be infested, and I can recommend it highly. It should be dusted freely on the legs and ankles and inside the hose and trousers. As an added precaution one should bathe as promptly as possible after exposure to chiggers, in order to remove the somewhat irritating sulfur and to destroy any surviving mites. This is an effective scheme of protection, but of course the best method is the elimination of local foci of chiggers. It must be remembered that chiggers may occur not only in thickets and fields, but also about golf courses and in our own gardens and vacant lots. They usually disappear if weeds and underbrush are cleared away and the grass is kept short by frequent mowing, especially if the vegetation is thoroughly sprayed with sulfur by means of a dust gun or dust blower. It is recommended that 50 pounds (22.7 Kg.) of sulfur per acre (4,047 square meters) be used. Infested lawns have been freed from chiggers by the dragging over them of a piece of canvas or sacking saturated with kerosene, but it should not be allowed to drip or remain long in one place, or the grass may be killed.

The Pancreas

The pancreas decreases somewhat in weight after 60, and there is a decrease in its vitamin C content. The volume of pancreatic juice probably does not show a marked diminution. The proteolytic activity is very definitely diminished, while the lipolytic and amylolytic functions show but slight decrease. The lipocaic and the insulin hormones from the islets may be somewhat diminished, but this is not definitely proven, and unless definite islet disease is present, the amount of these two secretions is sufficient for the individual to carry on. After 60 the incidence of the onset of diabetes is definitely lessened. The blood sugar curve is flattened showing a slower rise, a lessened height and a slower fall than in maturity. There is apparently a diminution of the ability to use and store glucose, and the renal threshold is somewhat elevated.

At 75 the liver has lost approximately 15 per cent of its maturity weight but shows no increase in connective tissue content. The hepatic safety factor is so large, however, that liver function is entirely adequate although the bilirubin content of the blood serum is increased. After 45 the ascorbic acid content of the liver shows a definite decrease. The gallbladder shows no specific ageing change and, unless disease is present, there is no diminution of the emptying time. However, we know clinically that the incidence of all types of cholecystic disease increases with advancing age. The weight of the small intestine appar-

ently begins to decrease in the fifth decade, and in advanced age the mucosa probably undergoes atrophy. The appendix shows a diminution of lymphoid tissue and a tendency to undergo lumen obliteration, beginning at the tip and gradually extending toward the base. The colon apparently becomes thinner and atonic as age progresses. The increase in diverticulosis with advancing age would indicate this, and the fact that diverticula can be produced experimentally by distending the autopsy specimen of the senile colon but not in that from young persons would seem to prove this. Constipation, contrary to popular impression, is apparently not an age phenomenon, for the constipated aged are those who have been constipated before the onset of senescence.—Walter E. Vest, M.D., Huntington; W. Va. M.J., Vol. 39, No. 6, June, 1943.

Syphilis Control in Industry

The industrial physician is in a unique position in syphilis control programs because of his relationship with the worker, the plant officials and the private physicians and clinics. A syphilis control program that is well carried out cannot but help to bring these groups closer together. The private physician often looks at the industrial physician with fear that he will lure patients away from him. It is the duty of the plant physician to keep workers in good physical condition and, therefore, he must constantly be on the lookout for pathological conditions.

The plant physician is not permitted to treat conditions that are not traceable to employees' occupation or to accidents, and he must, therefore, refer workers to their private physicians for the correction of defects. Very few of these cases would otherwise reach the family physician until symptoms interfere with their livelihood. In case of syphilis the plant physician acts as a case-finder for the private physician. He does not attempt to give treatment, but refers the case to the employee's private physician for treatment.

When an employee is diagnosed as having syphilis, he is greatly in need of a friend who will give him proper advice and guidance. If the procedure is attempted by the private physician alone, the worker is likely to think, because the treatment is long and expensive, that he is not receiving proper service. The plant physician can and does advise the worker that the treatment of syphilis requires time and money, and that the private physician is doing the right thing. Too many patients lapse from treatment because they are not sufficiently informed as to what constitutes adequate treatment.—H. A. Vonachen, M.D., Peoria, Ill.; Jour. Ind. S.M.A., Vol. 36, No. 6, June, 1943.

Allergy To An Estrogen

Dermatosis From Estradiol-17 Carbethoxyate

ROBERT D. BARNARD, M.D.

DERMATOSES following the subcutaneous injection of solutions of estrogens in oil are not uncommon and although Loftis¹ regarded the purpura observed in his case as a true allergy, Levison and Harrison² reported a skin reaction in which the vehicle alone was incriminated. Harten and Walzer³ seem to believe that the majority if not all the instances of purported sensitivity to oil solutions of estrogenic substances to be of the latter type.

In January, 1939, some samples of estradiol-17 carbethoxyate* were given to the writer for a study of its therapeutic properties. It was administered in doses of 1 cc. containing 1 mg. of the substance in corn oil solution to seven female and one male patients. The material was found by clinical trial to be definitely estrogenic but to induce, in addition a peculiar type of dermatosis which appeared to be an allergic reaction to the estrogen itself. The unusual features of this reaction were the latent period for its development, its occurrence only when the menses appeared and its failure to develop unless menstruation took place subject to the administration. Three out of four females who menstruated as a result of, or incidental to, the injections developed the skin manifestation while none of the non-menstruating females showed any indications of it. The injections were without obvious effect on a male subject.

It is of interest that the corn oil used for solution of the estradiol-17 carbethoxyate was the same as that employed as a vehicle for the estrogenic product, "Follestrin" which was used in 50 patients without any skin manifestation.

CASE REPORTS

Case No. 1. D. M., age 27, had had an oophorectomy and resection of cyst on other ovary four years previously. Since that time there had been a weight gain of 40 pounds; the menses were scant and painful, although regular. For the past two years she has been taking dessicated ovarian, pituitary and thyroid substance by mouth, which, she claimed, made her feel better but did not keep her from gaining weight. One mg. of estradiol-17 carbethoxyate in corn oil solution was administered on the twentieth day of the diestrus and 10 days later menstruation was coincident with the onset of violent itching at the site of the injection. The latter was covered by urticarial wheals. This menstrual period was more profuse and less painful than any since within a few months of operation. The

The Author

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itching continued for about a week and was not relieved by 5 per cent phenol. Further injections were refused. At the onset of the next menstrual period there was a recrudescence of the skin eruption near the area of the injection. This was less severe than the original and persisted for about three days.

Case No. 2. E. V., age 46, had menopausal symptoms of vasomotor flushes, nervousness and irritability. Menses had been scant and irregular and at the time of her visit she had not menstruated for 12 weeks. An injection of estradiol-17 carbethoxyate was given and four days later with the establishment of the menses an erythematous rash broke out over the entire arm which had been the site of the injection. Itching was severe and it could not be determined whether the erythema was due to the scratching or was part of the original dermatosis. The reaction subsided in a week. One year later, this patient began to lose strength and was found to have a hyperchromatic anemia. An injection of 2 cc. of Armour's 4 unit liver liquid was followed by a swelling and induration of the injected arm. The latter reaction was so severe that further injections were not given. The patient's course being down hill, oral liver therapy was instituted without improvement and subsequent laparotomy showed a carcinoma of the ascending colon with extensive metastases to the liver.

Case No. 3. D. G., age 36, had been irregular in her menses for six months; the last menstrual period was seven weeks previous to her visit. The complaints were of "flashes" and weight gain. The patient was very obese and the uterus could not be palpated. The Friedman test was negative. Forty-eight hours after an injection of estradiol-17 carbethoxyate a scant menses appeared along with amelioration of the hot flashes and an outbreak of blebs over the site of the injection. These itched so severely that the blebs were broken by scratching. The day after the outbreak, the extensor surface of the entire arm and upper portion of the forearm were covered with desquamated areas which were coalescent and each of which was about 5 mm. in diameter. The menstrual period lasted for three days; the skin eruption for a week. Following its abatement injections were given each week without any reaction but the patient stated that she felt better and the vasomotor disturbances had disappeared. Menstruation occurred normally at the

*Furnished by Dr. E. F. Pike of the Armour Laboratories, Chicago.
Submitted March 2, 1943.

next period with a milder outbreak of the itching but no blebs appeared. A total of seven injections were given at weekly intervals.

An attempt was made in this patient to delineate the effects of the estrogen from the possible allergenic effect of the corn oil vehicle. An aqueous suspension of estradiol-17 carbethoxyate was injected intradermally eight weeks after the first injection. A small ulceration resulted which persisted for some weeks. This did not appear to be an allergic reaction but the test was inconclusive for by this time the patient appeared to be desensitized to whatever the allergen happened to be.

Six months after the last injection, the patient returned for an additional series. For the past month there had been a recurrence of the hot flashes, sexual apathy and nervousness. Menstruation had been regular. A single injection of estrone (theelin—10,000 I. U.) was followed by a small outbreak of milia and itching over the area precedingly involved, coincident with the next menstrual period.

In one 38 year old female with catarrhal deafness and rhinorrhea who had no symptoms referable to the endocrine system, a series of injections of estradiol-17 carbethoxyate was without any manifest effect either on the skin, the menstrual cycle or on the otorhinologic condition. This was the only menstruating patient in which some dermatosis was not observed.

A 52 year old patient in whom an artificial menopause had been induced three years previously by radium treatment for endometrial polyps and who complained of vasomotor disturbances since, stated that relief was obtained from the estradiol-17 carbethoxyate injections. However this patient obtained the same relief from any type of hypodermic therapy, whether of estrogens, iron cacodylate, liver extract or ergotamine tartrate.

A 50 year old female with cancerophobia who had an eczema near the nipple of one breast, in whom a possible Paget's disease had been ruled out and of whom it was thought that the melancholia might be due to a delayed climacteric, showed no effect from either estrone or estradiol carbethoxyate injections. The same was true of an arthritic patient who had ceased menstruating two years previously without any marked systemic menopausal phenomena; five injections of the carbethoxyate were without effect and produced no skin reaction.

While it is probable that many of the instances of allergic reactions which follow the injection of estrogens or of other medicinals in oil solution or suspension are due to a sensitivity to the menstruum, it seems likely in this instance that the reactions were due to the estrogen itself or to have been conditioned by it. This conclusion must be drawn from the fact that in some instances a considerable interval elapsed between the time of injection and the appearance of the skin reaction which cannot be explained on the basis of sensitivity to the vehicle or of some im-

purity in the injected material. There is the possibility that the sharp reduction in the estrogen content of the blood which is supposed to attend menstruation might lead to more rapid absorption and dissemination of the depot estrogen along with its vehicle at this time, but this explanation as well as that which would predicate the interaction of the estrogen and its vehicle to form an allergen would still leave the estrogen as the allergenic substance.

It is of interest that the depot of estradiol-17 carbethoxyate from a single injection of this material in oil can persist as long as 38 days as judged from the recurrence of dermatosis in patient D. M. during two successive menstrual periods following the single injection.

Shorr, Robinson and Papanicolaou reported the occurrence of diffuse brawny erythema and itchy papular and muscular eruptions in some of their patients who were given diethylstilbestrol by mouth. While the authors do not mention that they regard these reactions as an allergy, the similarity to the latter is obvious from their description and in this instance no oily vehicle can be incriminated.

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The Blood

The titre of agglutinins, isoagglutinins, and lysins begins to fall in early maturity and shows a steady decline, reaching a very low level in advanced age. Apparently there is a decrease in antibody formation also. The degree of agglutinability of the red cells is not changed in the ageing process. The specific gravity of the blood decreases as does the serum calcium, but the refractive index, total nitrogen, lactic acid, indoxyl, urea and serum bilirubin increase. The blood sodium content shows no change with age. We have been unable to find in the literature any reference to the effects of ageing on the blood cells, but from observation we have ourselves recently made, we doubt that there are any except that the numerical leucocyte response to infection probably decreases as age increases.—Walter E. Vest, M.D., Huntington; *W. Va. M.J.*, Vol. 39, No. 6, June, 1943.

Tuberculosis will become a plague affecting approximately ten million persons in Europe after the war. Tuberculosis is the "delayed action bomb" of the diseases of war. Robert E. Plunkett, M.D., *Bull. N.T.A.*, Jan. 1943.

Significance of the RH Factor in Intragroup Transfusion Reactions and Erythroblastosis Fetalis

A Report to the Physician in Practice

A. P. FALKENSTEIN, M.D.

MANY excellent articles have appeared in the recent literature about the Rh factor and its role in isoimmunization and erythroblastosis fetalis. This paper is written for the sole purpose of bringing this problem closer to the practicing physician in the State. In knowing just the simple facts about this newly discovered factor, much damage can be prevented.

No discussion of the Rh factor will lead to a proper understanding if its relation to the other blood factors is not very clearly explained. For everyone who studies this problem, terms like isoimmunization, isoagglutination, agglutinin, or agglutinin, may cause confusion. To comprehend the meaning of these terms it is necessary to discuss all the blood factors first and to differentiate in general clearly between the properties of the human red blood cells and those of the human serum.

THE BLOOD FACTORS

All factors present in the red blood cells are referred to as agglutinogens and all those present in the serum as agglutinins. These properties have some similarity to the antigen-antibody relationship. The agglutinin corresponds to the antigen and the agglutinin to the antibody. If both come in contact, the agglutinin (antibody) causes agglutination (clumping), while the agglutinin (antigen) is being agglutinated (clumped). Table 1 gives a view of the most important known properties present in the red blood cells and in the serum of humans. The agglutinins normally present in the serum only clump cells of groups A, B, and AB, but not cells of group O, and on this basis men were classified into the four blood groups. These agglutinins are naturally occurring, hereditary, and not produced by immunization. Because they agglutinate the red blood cells of another group of the same species, they are called isoagglutinins. The other factors of the human red blood cells are usually referred to as blood types. With the exception of an extremely small number of reported cases, no agglutinins have been found in the human serum against red cells of types M, N, MN, and P.¹ They can therefore be neglected in transfusions. Agglutinins against these types, however, are produced in animals, usually in rabbits, by injecting human blood cells of the particular type.

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Only the Rh factor has been found to produce agglutinins in the serum of humans due to an immunization process. Because of the fact that this immunization occurs within the same species it is called isoimmunization. For this reason the Rh factor cannot be neglected in blood transfusions.

THE RH FACTOR*

The Rh factor was discovered by Landsteiner and Wiener in 1940.^{2,3} They injected blood from a monkey (*Macacus rhesus*) into rabbits. These animals developed agglutinins which clumped the red blood cells of the monkey. It was discovered that these agglutinins also clumped the red blood cells in about 85 per cent humans, whereas no clumping occurred in 15 per cent, regardless of the prevailing group or type. This means that the serum of the rabbits was immunized by an agglutinin, which in the blood cells of both *Macacus rhesus* and humans is similar. Because it was first discovered in the *Macacus rhesus*, this agglutinin was called the Rh factor. It is not present in all human red blood cells. Cells lacking this factor are not agglutinated by the specific agglutinins. Human red blood cells in which this factor is present therefore are called Rh+, (85 per cent of random population), those in which it is absent are termed Rh-, (15 per cent of random population). Immunization may occur in the serum of human beings which do not have this factor in their red blood cells when they are transfused with Rh+ cells. (See table 3). Immunization does not occur in the Rh+ group. The existence of this recently discovered blood factor was soon demonstrated to be of essential importance in the development of intragroup transfusion reactions and of erythroblastosis fetalis.

INTRAGROUP TRANSFUSION REACTIONS DUE TO THE RH FACTOR

Wiener and Peters⁴ demonstrated that when an Rh- patient received one or more transfusions

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Submitted March 22, 1943.

*For short explanation of terminology see table 2.

with Rh+ blood, specific antibodies were stimulated in his serum. If he received subsequent transfusions with Rh+ blood the previously produced agglutinins caused destruction of the Rh+ red blood cells of the donor resulting in a transfusion reaction. In some instances this reaction was fatal. Both patient and donor belonged to the same blood group and the usual method of crossmatching had not revealed any incompati-





THE BLOOD FACTORS			
THE BLOOD GROUPS		THE BLOOD TYPES	
			
R. B. C.	SERUM	R. B. C.	SERUM
ISAGGLUTINOGEN	ISOAGGLUTININ	AGGLUTINOGEN	NO AGGLUTININS PRESENT IN HUMAN
O* NO AGGLUTINOGEN	ANTI-A, ANTI-B	M	NO AGGLUTININS NORMALLY PRESENT BUT PRODUCED BY IMMUNIZATION
A	ANTI-B	N	
B	ANTI-A	MN	
AB	NO AGGLUTININS	P	
		Rh**	
* CELLS ARE NOT CLUMPED BY ISOAGGLUTININS		NO AGGLUTININS NORMALLY PRESENT BUT PRODUCED BY IMMUNIZATION	
** CELLS ARE CLUMPED BY CORRESPONDING ISOAGGLUTININ		* NEGLECTABLE IN TRANSFUSIONS	
NOT NEGLECTABLE IN TRANSFUSIONS		** NOT NEGLECTABLE IN TRANSFUSIONS	

TABLE 1

bility. When these cases, however, were checked for the Rh factor, it was found that the recipient belonged, as a rule, to the Rh— group while the donor's cells were Rh+. Further reactions in these cases could be avoided when a subsequent transfusion with Rh— blood was given. These investigations and additional reports of the same and other authors^{5,6} have established the fact, that Rh— persons are potentially endangered if they receive repeated transfusions with Rh+ blood and that this factor is responsible for the overwhelming majority of intragroup transfusion reactions.

THE RH FACTOR IN PREGNANCY AND IN ERYTHROBLASTOSIS FETALIS

Levine and co-workers⁷ in 1941 established isoimmunization due to the Rh factor as the cause of most cases of erythroblastosis fetalis and of intragroup transfusion reactions in pregnancy. The patients mentioned in these case reports presented obstetrical histories characterized by a number of complications such as toxemia, repeated abortions, macerated feti, and stillbirths which occurred after one or more normal deliveries. Some of these women had babies with erythroblastosis fetalis. Levine and co-workers found that these women were Rh— and were immunized by an Rh+ fetus, who had inherited this property from the Rh+ father. The Rh factor is known to be inherited as a Mendelian dominant.³ The mechanism of this isoimmunization, according to the authors, is as follows: Red blood cells of an Rh+ fetus pass through the placenta into the Rh— mother stimulating the development of antibodies against

Rh+ cells. Immune bodies from the mother filter back into the baby and act upon the Rh+ cells of the baby leading to the picture of erythroblastosis fetalis or its variances (congenital anemia and edema, icterus gravis). In about 93 per cent of these cases mothers were found to be Rh— while 100 per cent of the fathers were Rh+. In the remaining 7 per cent of women being Rh+ with babies with erythroblastosis fetalis, blood factors other than Rh were responsible for isoimmunization.

Unexplained cases of stillbirths, spontaneous abortions, macerated feti, and neonatal deaths may also to a certain extent be due to isoimmunization by the Rh factor.⁷ If for various reasons women which were immunized by an Rh+ baby receive a transfusion with Rh+ blood, a severe reaction may develop. This might happen at any time during pregnancy, before or after delivery. As the pregnant woman is immunized already by the fetus, a transfusion reaction can develop after the first transfusion with Rh+ blood. This will not happen if Rh— blood is given. Therefore, women with a history of repeated spontaneous abortions, with macerated feti, or women who have a baby with erythroblastosis fetalis are severely endangered, if receiving transfusions with Rh+ blood. These women should be typed for the presence of the Rh factor and of specific antibodies in their serum well in

TERMINOLOGY

Rh FACTOR,	BLOOD FACTOR PRESENT IN 85% OF HUMAN RED BLOOD CELLS. (Rh+)
Rh AGGLUTINOGEN,	SAME AS Rh FACTOR, (Rh+)
Rh ANTIGEN,	SAME AS Rh AGGLUTINOGEN, Rh FACTOR (Rh+)
Rh + (POSITIVE)	RED BLOOD CELLS IN WHICH THE Rh FACTOR IS PRESENT
Rh - (NEGATIVE)	RED BLOOD CELLS IN WHICH THE Rh FACTOR IS ABSENT
Rh ANTIBODIES	ANTIBODIES AGAINST Rh FACTOR STIMULATED BY IMMUNIZATION IN SERUM OF Rh- PERSON OR ANIMAL
Rh AGGLUTININS	SAME AS Rh ANTIBODIES
Rh SERUM	SERUM FROM Rh- PERSON OR ANIMAL IMMUNIZED WITH Rh+ CELLS. OTHER TERMS USED: ANTI-Rh SERUM, SERUM WITH Rh ANTIBODIES, Rh IMMUNE SERUM

TABLE 2

advance of any possible transfusion. If they are found to be Rh—, they should receive Rh— blood only. Antibodies cannot always be demonstrated in the test tube, as they might be fixed to the reticulo-endothelial system.^{5,8}

BABIES WITH ERYTHROBLASTOSIS FETALIS

Knowing the cause for this until recently unexplained condition in babies, the question arises whether these babies can be saved. Physicians have been accustomed to giving blood from the father or mother and still do so with the good intention of helping the baby. If the blood of the mother is given, the baby will receive only

more antibodies which will continue to destroy the baby's Rh+ cells. If the father's Rh+ blood is given, the cells will be destroyed by the antibodies present in the baby's serum. It is, therefore, preferable that these babies should receive Rh- blood only.⁹ This might in many instances save the baby's life.

COMMENT

It is evident from this discussion that recipients and donors for blood transfusions should be tested for the presence or absence of the Rh

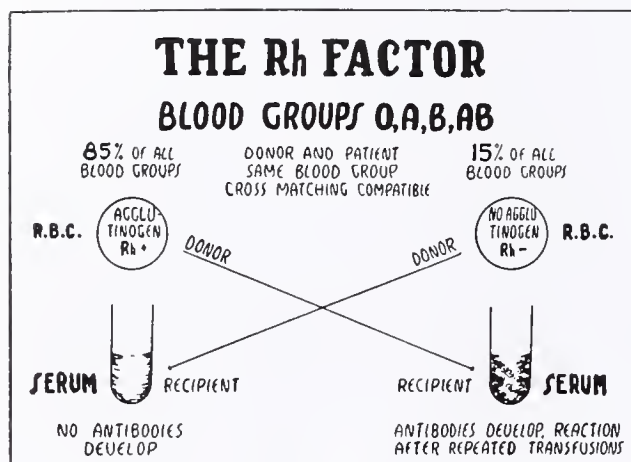


TABLE 3

factor besides the regular procedure of typing. Most laboratories at the present time fail to give such service because of the following reasons: The importance of the Rh factor was established only recently. The principle of the theory is difficult to understand and most laboratories lack proper assistance in performing the necessary tests. Anti-Rh serum for testing the Rh property of the red blood cells has so far not been readily obtainable. Most of the available serum is obtained from human sources. This serum can be used for typing if the potency titer is high. Serum of mothers of babies with erythroblastosis fetalis is by most authors considered to be the best and most reliable reagent at present. Levine¹⁰ obtained very potent serum from such mothers. These serums, however, showed variations in their ability to react with blood cells of different persons. For this reason Davidsohn and Toharsky¹¹ suggest that at least three different serums should be used for reliable testing. Serums having a sufficient potency titer must be neutralized with regard to the normally present agglutinins Anti-A and Anti-B to prevent their interference with the test unless they are used exclusively for the homologous group. Besides cases of erythroblastosis fetalis are rare and not in all cases could antibodies be demonstrated in the mothers. According to Levine¹⁰ the chances for demonstrating Rh agglutinins are better if the serum is tested soon after delivery of an erythroblastotic infant.

If physicians in practice and obstetricians

would bring to the attention of the laboratory all cases in which their patients give a history of obstetrical complications or recently delivered an infant with erythroblastosis fetalis, more potent Rh serum could be made available.

Every laboratory should be able to perform the test for the presence of specific Rh antibodies. The method which Levine and his associates recommend for detecting these immune bodies is simple.⁷ It is based on the fact that O cells are not clumped by the normally present agglutinins. These cells, therefore, are suitable for the test. The antibodies will react with the Rh+ property of O cells and lead to clumping in the test tube. If the majority of ten different group O cells is clumped, the serum can be considered to contain antibodies. As most laboratories are not able to determine the potency titer of this serum it is suggested that a sufficient amount of blood be withdrawn and sent to a laboratory which has experience in specific titration and where this serum could be processed for further use if the potency titer is found to correspond to the standard. In this way other laboratories may be able to secure highly potent anti-Rh serum.

The modified compatibility test of Levine⁷ should be carried out in every case, where repeated transfusions are given and in all obstetrical patients. The patient's serum and the donor's cells are incubated at 37°C for one hour. If clumping occurs in spite of the fact that both belong to the same blood group, "warm agglutinins" are present, which are identical with Rh antibodies. In this instance, blood from this particular donor should not be given as a transfusion reaction may be expected.

At the end of the discussion, attention is called to the fact that in Boston an organization has been formed to assist other hospitals and individual physicians in handling these cases. This seems to be worth-while establishing in every city in the country.

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Misconceptions Concerning the Peripheral Vascular Diseases

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DURING the past several years the author has had the privilege of studying several hundred patients who suffered from dysfunctions of the peripheral blood vessels. Out of this experience and from a perusal of the recent literature there has come an awareness that many erroneous ideas have been taught and are still current concerning these disorders. Certain misconceptions have been established in teaching and in practice until they have the position of dictums. These fallacious ideas not only impede progress in this field of medicine but also result in actual harm to patients.

It appears worth while to emphasize the falsity of these ideas to the general practitioners, who will be seeing greater numbers of these patients as the aged segment of the population increases. It has been estimated that in another 40 years more than 40 per cent of our population will be 45 years of age or older. While, as indicated below, age and the peripheral vascular disorders are not directly related, nevertheless, a deterioration of the peripheral vessels to some degree is one of the phenomena of the aging process. Therefore, the number of cases of peripheral vascular dysfunction is certain to increase in the coming years.

It should be clearly understood that while the author has satisfied himself of the inaccuracy of each of these misconceptions, there is no claim that the observations as to their falsity is original. As a matter of fact, a primary purpose of this paper is to reveal some of the recent literature on the subject of the peripheral vascular diseases.

The more common of these misconceptions are:

1. That there is a clinical entity known as peripheral vascular disease. To speak of peripheral vascular disease as a class is no more accurate than to speak of heart disease or liver disease. In fact, a classification of the dysfunctions of the peripheral vascular system is quite lengthy. One is quite naive if he thinks that all of these cases are much alike, and as a result that all of them are either hopeless or are to be given the same treatment.

A standard and complete classification appeared in the American Heart Journal of October, 1941. Some sort of classification is found in

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each textbook relating to the subject. A fairly simple and useful one appears in Collens and Wilensky's textbook, *Peripheral Vascular Diseases*. Such arrangements treat the arteries, veins and lymphatics separately and further subdivide the clinical entities for each into either reversible states (functional conditions) or irreversible states (organic conditions). Combinations of the two states may be present in a single patient, and functional changes may, over a period of time, become structuralized in organic pathology.

Each case of peripheral vascular dysfunction must be individualized as to diagnosis in order that it can be individualized as to treatment. The physician should not be misled by the promotional efforts of certain individuals who want to sell their form of treatment for each and every case. There is no such panacea known or even possible if one considers the physiological and pathological background of each case individually and then attempts to make an exclusive diagnosis.

2. That the peripheral vessels can be studied as a separate "part" of the patient. The very complexity of the human body leads to overspecialization in the study of its dysfunctions. The concept of peripheral vascular diseases as a separate field is misleading outside the limits of descriptive pathology. For any dynamic understanding of the problem, it is essential to be aware of the influences exerted on the peripheral vessels by:

- a. cardiac physiology and pathology
- b. neural physiology and pathology
- c. circulating humoral agents.
 - a. The state of the heart action (and of the great vessels) influences both the volume and the rate of flow in the peripheral blood vessels.

Therefore the physician must estimate the efficiency of the central vascular apparatus in every case of peripheral vascular dysfunction.

b. The nervous system exerts a considerable influence on the peripheral vessels by means of two neuro-vascular mechanisms.

The small arteries and the arterioles are subjected to a more or less continuous bombardment of vasoconstricting impulses. This mechanism is used to distribute the blood volume, to regulate the blood flow, to conserve or to dissipate heat as the case may be, to compensate for shifts in the blood volume and/or flow in another region of the body, and to meet emotional needs. With such a wide range of activities, it should be clear that the physician should estimate the amount of vasoconstriction in every case of peripheral vascular disorder and should attempt to decrease it if such a reduction is indicated. Some of the ways for combating vasoconstriction are indicated below. One generally useful means is that of mild sedation. This helps to block out the vasoconstriction which may accompany anxiety and worry.

A second type of neural control is that exercised by the sensory nerve fibers of the skin on the subcutaneous capillary bed. Disorders of this mechanism may cause either a disproportion in the size of the capillary and arterial beds and a slowing of the capillary circulation, or a marked reduction in the number of available capillaries. This mechanism is quite sensitive to cold, so that as a result the ischemic limb should be well protected from even cool atmospheres. This may be accomplished by the use of woolen gloves and hosiery.

c. A knowledge of the action of circulating chemicals in the blood of the peripheral vessels is of increasing importance. Adrenalin and sympathin are vasoconstrictor substances, while acetylcholin causes vasodilatation. To these must be added a newly discovered renal factor which results in vasoconstriction.

3. That chronological age has a direct relationship to the incidence of the peripheral vascular diseases.

The observer is quick to notice that the patient's age is often out of proportion with the efficiency of his peripheral vessels. The chief clinical entity to be correlated with chronological age is arteriosclerosis, and even these two fail to show any parallelism in many cases. Quoting Leary, "Age is only one factor in arteriosclerosis."

Each case should be studied individually, therefore without undue emphasis on chronological age. It is a misconception to think that all young cases have a better prognosis than all old cases. In peripheral vascular sclerosis the patient's "age" is to be measured in the degree and

extent of his arterial narrowing and not in terms of his years. On the other hand, his "youth" is to be measured in terms of his possible compensations through the use of non-sclerosed collateral vessels and their innervations. In other words, "physiological" age is more important than chronological age.

4. That all peripheral vascular diseases can be "cured".

It is necessary to determine whether a given case of peripheral vascular impairment is due to reversible or irreversible changes in the neuro-vascular machinery, or as a third possibility, to a mixture of these two types of changes.

Reversible changes, such as excessive vasoconstriction and vasodilatation, may in some instances be entirely adjusted by the removal of exciting causes or by the introduction of opposing stimulants.

But irreversible changes such as fibrosis, sclerosis and thrombosis cannot be obliterated. Obstructed and narrowed vessels cannot be restored. Here the treatment is aimed at the prevention of an extension of the pathology and at the expansion of unimpaired collateral channels.

5. That palpable arteries (especially the dorsalis pedis artery) are indicative of an efficient circulation.

The successful palpation of an artery is dependent upon (1) the intra-arterial pressure, (2) the state of the arterial wall, (3) the state of the periarterial and overlying tissues and (4) the skill of the examiner. Due to such causative factors, the dorsalis pedis artery cannot be palpated in 4 to 8 per cent of "normal" feet (Tucker).

There are other pitfalls. Abnormally high pulse pressures make the arteries more easily palpable and hence may lead to the misconception that the circulation is "good". Furthermore, the palpation of one artery tells nothing of the condition of other arteries in the same region. The superficial arteries may be quite pathological and the deep arteries may be efficient in the same case, or vice versa. As an example, the dorsalis pedis artery may be palpable in the presence of a severe intermittent claudication due to narrowing of the arterial supply to the leg muscles (Freeman and Grodins).

6. That a "normal" brachial blood pressure precludes any form of peripheral vascular disease in the lower limbs.

The dynamics of the circulation are different in the upper and lower limbs. The vessels of the lower limbs are farther from the heart and are more subject to the influence of gravity. The venous return is more subject to derangement and therefore the arterial flow is more often

forced against a greater resistance. Hence the brachial blood pressure is entirely unrelated to the popliteal blood pressure, and it is erroneous to consider that a "normal blood pressure" (brachial) indicates that "the patient has a good circulation".

7. That full veins are a sign of an efficient peripheral circulation.

The degree of fullness of a vein is not the sole factor to be considered. It is important to know (1) the state of the vein when it is on the heart level, (2) the venous filling time and (3) the venous emptying time.

A full vein in a dependent limb does not necessarily mean efficient circulation. In fact, the flow in the full vein may be very slow. It is necessary to evaluate the size of the vein when it is horizontal and at the heart level. Even so, a full vein in a horizontal limb may indicate increased venous pressure and stagnation of the blood stream. These possibilities can be checked by taking the venous emptying time.

The filling time in seconds for an empty, non-varicose, small, superficial limb vein indicates the cross-sectional size and rate of flow of its capillary-bed connections. The average time is less than 10 seconds.

The emptying time of a similar vein when well-filled averages less than 5 to 7 seconds, and such a time interval indicates a free channel to the central veins.

In summary, it is a misconception to merely observe full limb veins and then to preclude all forms of peripheral vascular disease.

8. That it is not necessary for the peripheral vascular patient to stop the use of tobacco.

While it remains to be proved that any form of peripheral vascular disease is caused by prolonged or excessive use of tobacco, nevertheless it is a well founded fact that tobacco smoking causes some degree of temporary vasoconstriction in the great majority of individuals.

Therefore the patient who is suffering from impairment of the peripheral circulation, whether it be on a reversible basis (vasospasm) or on an irreversible basis (arteriosclerosis, thromboangiitis obliterans), should not add to that impairment the further decrement which follows smoking. Even though such decreases be slight and temporary, they are still an added burden.

Therefore any patient with clinically recognizable peripheral vascular deficiency should not smoke "now and forever" (Wright—a).

9. That alcohol is contraindicated. There is a tendency to deny alcohol along with tobacco, heavy work, late hours, etc., in deficiencies of the peripheral circulation. As a matter of fact, alcohol, which is definitely a vasodilating drug in direct contrast to tobacco, is beneficial. The

judicious use of alcohol cannot be too strongly urged (Yeager).

On the therapeutic side, whiskey, oz. ii combined with aspirin gr. X, p.r.n., is one of the most effective means for the control of the terrible pain of peripheral vascular deficiency. Such medication has twofold results—analgesia and vasodilation.

10. That the affected limb should be elevated.

The elevation of the affected limb is an almost universal practice. Such treatment probably had its beginnings in a desire to "rest" the sick member on a pillow. But prolonged elevation is known to have been a frequent cause of amputation in the past (Wright—b).

However, a little reflection on the part of the physician should enable him to understand that he can make use of gravity in the treatment of derangements of the peripheral circulation. If there is too much blood in a limb, elevation of the part will allow gravity to assist in its drainage. Such conditions are rare with the exception of thrombo-phlebitis, where elevation is indicated to increase the rate of venous flow. In the great majority of peripheral vascular conditions there is not enough blood in the limb and therefore it should be placed in a slightly dependent position so that gravity may assist in filling the vessels. In the case of the lower limb the heel should be placed from 3 to 6 inches below the heart level; in the upper limb, the ulnar side of the hand should occupy a similar level. In such positions the superficial veins should be well filled but not overly distended. Such instructions are not arbitrary and should be modified to suit the individual case. However, it will often be found that if a swollen ischemic foot is depressed for three or four days it will begin to improve, and the swelling will subside. It is often necessary for the physician to have the courage of his conviction for the first few days until the peripheral circulation becomes compensated.

11. That external heat must be applied to the limb which has impaired circulation.

A limb ordinarily derives its heat from the warm arterial blood which is brought to it. As such, the heat distribution is internal, is diffuse, and is non-burning.

In contrast, externally applied heat is concentrated on the surface, is more localized and may burn the tissues. Burning is much more apt to occur in the limb with impaired circulation than it is in the normal limb. If excessive heat is applied to a normal limb, the excess is carried away by additional blood which is flushed under the hot skin by the compensatory physiological mechanism of vasodilation. There is no such effective mechanism for getting rid of the excess heat in the limb with the impaired circulation and hence there is more apt

to be local tissue destruction. Furthermore, the sensitivity in the limb with impaired circulation is apt to be faulty, so that the physician should not judge the degree of heat to be applied to the ischemic limb by the statements of the patient. Such a person may suffer a burn without a sensation of being burned.

Therefore, in most cases it is best to let the body furnish its own heat to the limb. This can be accomplished for the impaired limb by preventing the usual heat loss from it. A complete wrapping of wool or cotton batting will conserve the heat in the sick limb.

If vasodilation is the aim, it can be gained by applying heat to the more proximal region of the limb or to the trunk by means of heavy bed covers or by use of a heating pad for an hour twice a day. These procedures will activate whatever peripheral vasodilation mechanisms are functional in the patient, and are without danger to the ailing part.

12. That contrast baths are good treatment for an ischemic limb.

The use of the contrast bath for a limb which is deficient in blood is common.

Such alternating hot (105°F) and cold (65°F) baths are (1) of doubtful value; (2) are dangerous; and (3) are usually painful.

If vasodilation is to be accomplished for the sick limb it can be best brought about by applying heat not to the limb itself but to the trunk, as mentioned above.

The application of local cold may cause thrombosis through excessive vasoconstriction, or may cause the death of tissues which are already weakened by anoxemia.

Therefore, more scientific, safer, and more pleasant methods of treatment than that afforded by the contrast bath are available.

In summary, some common misconceptions concerning peripheral vascular conditions have been stated and corrected. The application of the correct conceptions will enable the physician to give the patient the best possible general care in this field of medicine, which at the best is a difficult one.

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The Thyroid

The aged thyroid is reduced in size, there is a definite increase in the connective tissue, and a progressive increase of the lymphoid infiltration of the stroma. The blood supply is diminished, the number of follicles is reduced, and the cells are smaller, the epithelial cell mitosis is lessened, the colloid is less in volume and appears less dense. There is a definite and progressive lowering of the basal rate as age increases, probably as much as 25 per cent in late senescence. As age progresses the homeostatic mechanisms are not affected to any marked degree under ordinary circumstances, but when subjected to stress they are able to function within a narrowed range only.

The cerebrospinal fluid increases in volume paralleling the decrease in brain volume, but otherwise shows adult maturity values.

Visceral and cutaneous sensations show a gradual diminution of acuity as age increases and vibratory sensibility at 70 is only half that at 20. Perception is not so prompt and its span is shorter. Individual superiority in youth is persistent with age progress, so that a superior individual in youth tends to retain his superiority over the common herd in adulthood and in senescence. Learning power is retained well, and this is especially true when the subject matter studied consists of materials in which the learner is interested or which he desires to acquire. There is, however, a decrement of speed and accuracy in learning as age advances, especially when the learning task involves reorganizing established habit systems. Intelligence tests show a decline with increasing age, apparently due to the slowing up of the speed factor in response, but intellectual persistence shows no decrement. Thus, for performance where rapid reaction is not necessary but the essential factors are comprehension, experience, reasoning and judgment, the response is good so long as the individual tested maintains mental practice and intellectual interest. The language function, especially the vocabulary, is well maintained in senescence. Interests definitely change with advancing years, those in physical activities and amusements waning and those in home, reading and intellectual activities becoming ascendant. Psychological maturity is maintained after the physiological life curve has begun the downward swing, and the power of successful administration is maintained well after physical decline has set in. This is probably a result of the experience increment. In general, to quote Miles, "the more the behavior product involves experience and considered judgment, the more resistant it is to the psychophysiological age deterioration."—Walter E. Vest, M.D., Huntington; W. Va. M.J., Vol. 39, No. 6, June, 1943.

The Role of Aluminum in Nutrition

JONATHAN FORMAN, B.A., M.D.

ALUMINUM is a constituent of all plants and animals. It is also found regularly in milk. Aluminum is found in all parts of plants, least in the seed and most in the growing leaves. Ceylon tea leaves for instance have shown as high as 465 milligrams in a kilogram.

In the process of weathering the rocks and in leaching in humid climates, soluble compounds thus formed are carried away in the waters which drain off. Aluminum in the form of its oxide or in a soluble combination of the oxide with those of iron and silicon tend to increase in most soils in humid regions. Even the silicon in the silicates tends to leach away in hot climates with a high rainfall leaving a soil increasingly rich in the hydrated oxides of aluminum. The order of solubility of the elements in granite is calcium, magnesium, sodium, potassium, silicon, and aluminum. So the residue tends to be richest in aluminum.

It must not be forgotten that the toxicity of acid soils is not altogether a matter of the concentration of hydrogen-ions but in part it is a matter of the increased solubility of aluminum and magnesium. The concentration of soluble aluminum is least when the reaction is kept between pH5 and 7. So it can be seen why limestone is needed on acid soils for the satisfactory growth of all crops that are sensitive to the presence of aluminum. On the other hand, rhododendrons and blueberries thrive in an acid soil with a relatively high concentration of aluminum.

Maze has found data in his experiments that aluminum is essential to the growth of maize. Hester, the leading authority on the chemistry of tomato culture, is convinced that aluminum in a mere trace is harmful to tomato plants. Plasmolysis measurements show that aluminum-ion increases and PO_4 -ion decreases the viscosity of the protoplasm of the epidermis of fleshy scales of an anthocyanin-bearing onion. The application of $\text{Al}_2\text{SO}(\text{So})_3$ so changes the permeability of protoplasm of 10-day-old wheat seedlings that their resistance to frost is ever so much increased. One of the toxic effects of aluminum is its inhibition on the plant enzymes. There is great need for further study to make certain that aluminum does not play a role in some plants which because of its obscurity is being over-looked.

Animals have been in intimate contact with aluminum throughout the ages. It is found in all tissues. It is found in largest amounts in the livers of dogs and rats and in livers and brains of men. The absorption by the intestinal tract is exceedingly poor. When it is added to the diet in the amounts of 1400 parts per million, phosphorus absorption is inhibited. Under these conditions young animals develop severe rickets. Such a situation is never met with in normal diets or derived from aluminum utensils. We have no data at hand to show what effect the use of huge doses of aluminum as anti-acid or intestinal adsorbent may have.

Nor should we worry about its toxic effects because when injected parenternally, it produces no discernible effects. Growth is not retarded; reproduction and lactation are not impaired; and no changes are found upon autopsy in the tissues either macroscopic or microscopic. Some 35 years ago this country was in the throes of a sharp controversy over the alleged health hazards of aluminum. Fear had been created in the minds of the public through advertising of competing baking powder firms not containing aluminum that baking powders containing sodium aluminum sulphate as its acid constituent might be detrimental to health of its user. The Referee Board of Consulting Scientific experts consisting of some of the most famous physiologists and medical men of the time was created by President Theodore Roosevelt. These experts agreed that the aluminum itself exerted no deleterious effect beyond an occasional colic and that aluminum compounds mixed with foodstuffs is not harmful in any way.

This was followed later by another controversy started by the industry as to the harmfulness of aluminum. Especial emphasis was placed on the statement that the great increase in cancer which was alleged to be taking place was due to the use of aluminum cooking utensils. That aluminum utensils produced cancer or were in any way harmful to health of the nation was disproved to the satisfaction of the American medical profession and the public promptly forgot it.

So we must conclude that we have very little evidence about this element which has been around man in such abundance since the beginning and which is always found in his tissues in very small amounts. Whether its presence is accidental as a contaminant or whether it has a role about which we are ignorant will have to await investigation.

This is the eighth of a series of editorial summaries on the so-called trace elements on Conservation, Nutrition and Human Health.

Addison's Disease Due To Cytotoxic Contraction of Adrenal Cortex With Sudden Death Four Days After Appendectomy*

THOMAS C. LAIPPLY, M.D.

THE first of two hospital admissions for this white male, aged 29 years, was on January 1, 1942. At this time he complained of "tiredness and lack of energy". Six years before he had first noticed increasing brown pigmentation of the skin over his entire body. Other than being unusually fond of salt he had no other symptoms until four years later when patchy brown pigmentation of the oral mucous membrane and increased pigmentation of the genitalia was noted. During the year preceding admission to the hospital, he noticed weakness, increasing fatigability and a sixteen pound weight loss. Hospitalization was advised because of a "chest cold" accompanied by fever, chills, nausea and vomiting. Physical examination revealed a well developed and well nourished 29 year old white man who was somewhat lethargic but not gravely ill. His temperature was 37.3° C., pulse 80, respiratory rate 20, blood pressure 82/50. There was generalized dark brown pigmentation of the skin, especially over the face, neck, extensor surfaces of arms, genitalia and perianal region. Similar but patchy pigmentation of the gums, under surface of tongue, hard and soft palate was noted. The superficial lymph nodes were moderately enlarged, firm, discrete and non-tender. All reflexes were hypoaactive. Laboratory examination revealed: Urine—androren excretion in 24 hours equivalent to from 2.8 to 7.9 (average 5.69) mg. of 17-ketosteroids; Blood—negative Kline exclusion test, 5.92 M. erythrocytes, 96 per cent hemoglobin (Sahli), 11,700 white blood cells, fasting blood sugar 12 mg./100 cc., BUN 19.5 mg./100 cc., NPN 33.7 mg./100 cc., plasma chlorides as sodium chloride 544 mg./100 cc. or 93 mm. eq.; urea clearance test 62.5 to 72.5 per cent; BMR minus 12; EKG—normal except for prolonged QT interval; X-ray—calcified tuberculous complex in left lung and regional lymph node, unusually small heart, no calcification in region of adrenal glands. During the first day after hospitalization the patient was given 10 grams of sodium chloride and for several days 1000 cc. of normal saline. There was a prompt rise of his plasma chlorides to normal by the third hospital day. The daily administration of 75 mg. of ephedrine sulfate had no effect on his blood pressure. The Robinson-Power-Kepler test for Addison's disease was positive. An attempted Wilder test was discontinued after 48 hours because of vomiting. The vomiting rapidly disappeared after the administration of normal saline and desoxycorticosterone acetate intravenously and intramuscularly. The daily administration of 5 mg. of desoxycorticosterone acetate intramuscularly had little effect on his condition. On his 19th hospital day,

150 mg. of desoxycorticosterone acetate was implanted subcutaneously. After this he remained asymptomatic and was discharged six days later. At this time his blood pressure was 98/58. The diagnosis was Addison's disease.

During the next several months he was kept symptom free by the administration of desoxycorticosterone acetate, an additional 300 mg. being implanted subcutaneously. He was able to work in a steel mill in a hot environment without taking sodium chloride tablets as did the other workers. He gained twelve pounds and his blood pressure averaged 90/50.

The second hospital admission was on April 5, 1943, with a history of abdominal pain, diarrhea, nausea and vomiting of two days duration. Physical examination on admission revealed him to be acutely ill with a temperature of 37.2° C., pulse 105, respiratory rate 20, blood pressure 70/40. There was no change in the pigmentation since previous hospital admission. The significant signs were limited to the abdomen. There was spasm, rigidity, tenderness marked in the right lower quadrant and at this site there was also rebound tenderness. Laboratory examination showed: Urine—slight trace of albumin, 4 plus sugar, few white blood cells, red blood cells and granular casts; Blood—6-9000 WBC, 4.5 M. RBC., 75 per cent Hgb. (Sahli), hematocrit 37 per cent, BUN 12 mg./100 cc., plasma chlorides 550 mg./100 cc. or 94 m. eq. A diagnosis of acute appendicitis was made but operation was delayed for 7 hours until the patient had been given: 2000 cc. 5 per cent glucose in normal saline, 5 mg. desoxycorticosterone acetate in oil intramuscularly, and cortical extract 20 cc. intravenously and 10 cc. intramuscularly. Appendectomy was then performed with local and nitrous oxide anesthesia. The appendix was the site of acute gangrenous inflammation. Within 24 hours after operation the patient's temperature rose to 40.6° C. and subsequently gradually fell to 38.3° C. He was given a total of 132 cc. of cortical extract, by intravenous, intramuscular and subcutaneous injections. His blood pressure varied between 102/78 and 122/80, most of the time being over 110/80. With the decline in temperature he was thought to be improving, but on his fourth postoperative day was nauseated and took no nourishment after 3:00 p.m. At 5:15 the next morning he had no complaint other than slight nausea. When next seen, 45 minutes later, he was dead.

Autopsy (8091) was performed by Dr. F. R. Dutra four hours after death. Blood was taken from the right brachial vein at postmortem. The blood sugar level was 15 mg./100 cc. The most significant findings were: Cytotoxic contraction of the adrenal glands, melanin pigmentation of skin and buccal mucous membrane, generalized hyperplasia of lymphoid tissue, focal chronic inflammation of the celiac ganglia, atrophy of thyroid and pineal glands, hypertrophy (microscopic) and dilatation of the heart,

*Selected by H. T. Karsner, M.D., from the Clinical-Pathological Conferences at the Institute of Pathology, Western Reserve University and University Hospitals as the sixteenth of a series of cases to be published under the heading "Case Records Presenting Clinical Problems".

subacute myocarditis, active conglomerate tuberculosis of upper lobe of left lung and left peritracheal lymph nodes, inactive tuberculous complexes in lower lobes of lungs and bronchopulmonary lymph nodes.

The adrenal glands were markedly reduced in size, the right weighing 1.022 grams and the left 0.833 grams. Neither grossly nor microscopically were there recognizable cortical or medullary cells. Microscopically, there was extensive fibrosis and infiltration with lymphocytes and plasma cells.

COMMENT

The diagnosis of Addison's disease was easily made clinically. The only problem in diagnosis was the determination of the nature of the adrenal lesion. The absence of demonstrable calcification in the region of the adrenal glands and the presence of a normal blood sedimentation rate pointed to destruction of the adrenal cortex by cytotoxic contraction rather than by tuberculosis.

Response to treatment with desoxycorticosterone acetate pellets was satisfactory. With this treatment his systolic blood pressure rose from 70 to 90 and was maintained at the latter figure. He was even able to work in a steel mill, doing hard labor in a hot environment without untoward symptoms. It was thought by repeated roentgen examinations that the heart increased in size from a minus 15 to a minus 8. Whether this was due to hypertrophy or dilatation could not be determined.

The second hospitalization was for acute appendicitis, evidently 48 hours after its onset. It was necessary to postpone the appendectomy in order to administer adequate fluid and adrenal cortical extract. During times of physiologic stress desoxycorticosterone in itself is inadequate; consequently adrenal cortical extract was administered before and after operation.

The sudden death is difficult to explain. Patients with Addison's disease usually lapse into coma prior to death. This coma may be due to adrenal cortical insufficiency, hypoglycemia or be without known cause. The absence of coma would seem to exclude the first two of these. Adequate therapy, indicated by the blood pressure, further excludes death with the typical Addisonian crisis resulting from adrenal cortical insufficiency. Profound hypoglycemia seems unlikely since only 45 minutes elapsed from the time the patient was last seen to be conscious and death. This viewpoint is further supported by the blood sugar of 15 mg./100 cc. four hours after death. According to Hill¹ the blood sugar falls at the rate of 12.8 mg. per hour at 37.5° C. and 5.98 mg. per hour at 27.5° C. Sugar determinations on blood obtained four hours after death are notably inaccurate. In this case, at the time of death, the blood sugar was undoubtedly below average, but

probably was not sufficiently low to result in either coma or death.

Cardiac dilatation and circulatory insufficiency are perhaps the chief untoward symptoms of inadequate treatment with desoxycorticosterone acetate. Reports of autopsies in patients so treated have not, however, indicated cardiac lesions like those produced in rats by the repeated administration of desoxycorticosterone acetate. These lesions described by Darrow and Miller² include necrosis of myocardial fibers with replacement fibrosis. In the above case, nevertheless, acute cardiac failure must be considered as the cause of death.

The autopsy disclosed the cause of the Addison's disease to be cytotoxic contraction of the adrenal glands. The incidence of this condition varies in different reported series of cases of Addison's disease. In practically all series tuberculosis is by far the most common lesion of the adrenal glands. The incidence of cytotoxic contraction as a cause of Addison's disease or acute adrenal insufficiency are reported by different authors is as follows: Guttman³ 65 of 403 cases (16.13 per cent), Barker⁴ 3 of 28 cases (10.17 per cent), Brenner⁵ 13 of 68 cases (19.12 per cent). At the Institute of Pathology of Western Reserve University and University Hospitals there have been 3 of 15 cases (20 per cent).

Cytotoxic contraction is a selective destruction usually of the adrenal cortex and sometimes also of the medulla. Its cause is unknown. It has been suggested that the condition is the result of the effect of some injurious agent which selectively injures the adrenal cortex. The histories of the cases thus far reported give no satisfactory clue as to the source or nature of this hypothetical substance. There is no evidence that the lesion is due to infection or to injurious products from lesions elsewhere in the body.

SUMMARY

A case of Addison's disease due to cytotoxic contraction of the adrenal cortex in a 29 year old white male is presented. Sudden death occurred four days after appendectomy. The exact cause of death could not be established but was thought to be acute cardiac failure.

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Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

PNEUMOTHORAX IN THE TREATMENT OF ACUTE MINIMAL TUBERCULOSIS

In its most characteristic connotation, the term acute minimal tuberculosis implies a recent, or relatively recent small area of pulmonary infiltration without cavitation. This lesion is most often found beneath the clavicle or in the first or second anterior interspace and is described by the roentgenologist as "soft."

Typically, we might expect the patient to be a healthy-appearing adolescent or young adult who has been in direct contact with a case of active tuberculosis. Cough, sputum, hemoptysis or other classical symptoms have usually not appeared. Constitutional symptoms are absent or are limited to malaise, anorexia or slight weight loss. Careful physical examination of the chest is usually negative. The Mantoux test is positive, while the sputum or gastric contents may or may not be positive.

Although the foregoing might be described as "typical," each individual case represents a problem for the physician to solve, not only on the basis of his experience in the usual methods of treatment, but also on his knowledge of the social background, economic status and psychological make-up of his patient. Such important considerations as age, sex, race, occupation, co-existing diseases and length of exposure to tuberculosis must be carefully weighed.

To obtain this information, a period of observation at basal conditions, i.e., absolute bed rest, is essential. Whenever possible this period should be spent in a hospital for the tuberculous, away from the distracting influences of the family. This period should be measured in terms of weeks rather than months.

Occasionally, a lesion which roentgenologically seems entirely typical, will clear in the space of two or three weeks, indicating a mistaken diagnosis.

The acute early infiltrate is always an unstable lesion, it soon regresses or progresses. Absorption or fibrosis may follow; or there may be rapid or slow progression with caseation, liquefaction and excavation.

The indications for pneumothorax are numerous but, in the opinion of the author, the following are the most important. The production of positive sputum indicates that tissue necrosis has already occurred, and for this reason, these cases should be given pneumothorax promptly. Likewise, lesions with X-ray evidence of beginning breakdown should be collapsed immediately.

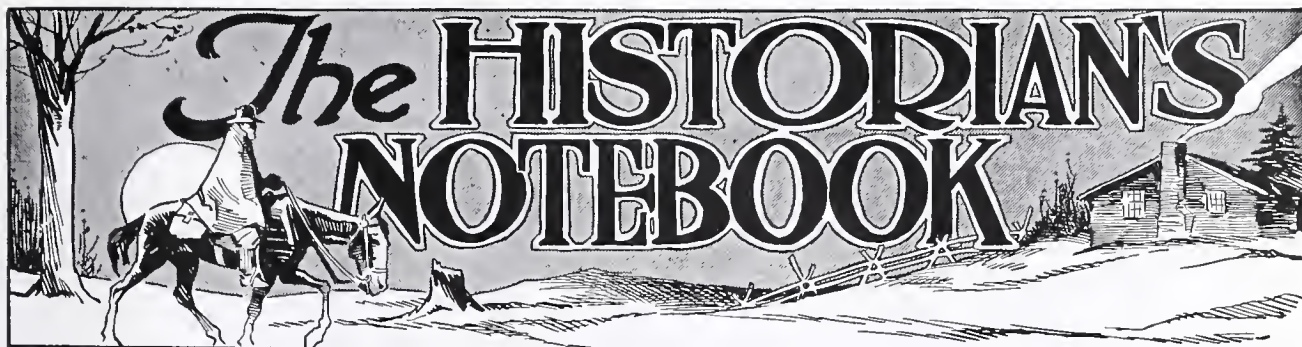
If the lesion continues to progress on bed rest, immediate collapse is indicated, even though the sputum remains negative. In addition to serial X-ray, careful pulse, temperature and respiration records, sedimentation index and differential white count are valuable indices of the patient's course under therapy.

There are supplementary, more personal indications for pneumothorax which have not been mentioned so prominently in the literature. The family wage-earner may prefer immediate collapse and the attendant shorter period of hospitalization and disability to the more conservative, if equally effective, period of absolute bed rest.

Likewise, the non-cooperative, the unintelligent, or the trouble-making patient may be much better controlled by pneumothorax. In the experience of the author the most difficult patient to handle in the sanatorium is the apparently healthy individual with no symptoms. He finds it boring to maintain himself at bed rest and all too frequently leaves the hospital against medical advice. Many times pneumothorax has been instituted because it seemed the only way to control both the patient and his lesion.—Edwin G. Kirby, M.D., *Tuberculosis Supplement to California and Western Medicine*, July, 1942.

The successfully treated part-time or full-time tuberculous worker can contribute to the manning of the war industries with great benefit to the nation and to the worker himself. A risk is present but if workers are chosen on a sound medical basis, the risk is not great and is worth taking particularly in the present emergency. Plans must be made also for the future tuberculous service men and civilian war workers. The expansion of the facilities for training and placement of tuberculous workers is necessary. The establishment of workshops for industrial convalescence and perhaps colonies for chronic patients is called for.—Louis E. Siltzbach, M.D., *Milbank Memorial Fund Quarterly*, Jan., 1943.

The prevalent opinion that the finding of active tuberculosis in a minimal stage warrants an excellent prognosis is true only if qualified by the statement—"if adequate treatment is taken".—Samuel C. Stein, M.D. *Pub. Health Nursing*, Mar. 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Surgery in Ohio

DUDLEY W. PALMER, M.D., Cincinnati, Ohio

(Continued from June issue)

J. C. OLIVER in January, 1898, removed a cecum for malignancy, the pathological diagnosis being made by Dr. H. J. Whitacre who later acquired great prominence as a surgeon in Cincinnati and the far west. The examination showed a colloid carcinoma. At the time of this report about five months later, the patient had gained 53 pounds in weight. So far as is known this was the first case in Cincinnati where the cecum was removed.

Dr. Albert H. Freiberg of Cincinnati, said in his paper at the Columbus meeting that tuberculosis had been considered one of the rarest surgical conditions and especially so as a primary lesion of the breast. Prior to 1890 practically no mention of this was made in surgical papers. At the time of Dr. Freiberg's paper only about 50 primary tubercular lesions of the breast had been reported and but 10 by United States doctors. He reported a case in an unmarried woman of 31 with three close relatives having tuberculosis. In November, 1897, the patient was operated upon and in April, 1898, was reported well. He advised against partial breast operations but in the majority of cases he felt it was unnecessary to enter the axilla.

Dr. E. S. Stevens of Lebanon, started his paper on "Obscure Cases of Gall Bladder Disease" with this statement which is still very true: "The enemy in ambush is the enemy to be feared. The unseen danger is the grave danger". In discussing this paper R. B. Hall of Cincinnati said "I predict that in the near future . . . the next organ to be investigated surgically will be the gall bladder. In fact, not a few surgeons are doing it now".

During this period of the Second World War it is perhaps consoling to read P. S. Conner's paper before the State meeting at Springfield, Ohio, in May, 1899, on "Medical and Surgical

Lessons of the Late War". He said, "War has long been a great teacher of surgery. From hospital and camp has come much of the knowledge that we have of the nature of wounds. There is so much new today that the invalids of this war will be the objects used to teach the profession of the future new methods of approach in our effort to prevent death; war is the noblest contribution to medicine ever made by any men in any country". At this time it is wise to add one more quotation from Dr. Conner's article about the Civil War. "A most unfortunate thing in the history of this war was the lowering of the entrance age from 21 to 18. It is nearly a century since Napoleon wrote back to Paris, "For God's sake send me no more boys, they fill up my hospitals". If the age limit had been maintained many of those that were sick would have been left at home and been well". The writer of this article has recently sent a copy of this statement of Conner's on to our Senator from Southern Ohio and the President of the United States.

In 1899 Allen H. Vance of Springfield, in his article on "When Should the Physician Call in the Surgeon in Appendicitis" said a "very large majority of the cases of appendicitis must filter through the hands of the physician". Until very recent years this was far too true as the filtering process was so slow in many instances that the filter broke to cause peritonitis. Not until 1889 did McBurney advocate the early operation, which advice many Ohio surgeons were slow in adopting and a few still are too slow. Dr. Vance reported in his article seven cases of appendicitis, all ruptured of which two died, five recovering.

Dr. B. Merrill Ricketts of Cincinnati, in his paper speaking of "Surgical Appendicitis" reported he had not removed the appendix in ten operated cases, or 20 per cent. What would be said today (1942) if 20 per cent of patients were

allowed to go so long as to necessitate drainage without removal. These papers were discussed by some twelve prominent medical men from all parts of Ohio.

At the end of the nineteenth century the surgeon who could report as many as 65 consecutive abdominal sections without a death had every reason to be proud and receive the acclaim of his fellows. Hunter Robb, Professor of Gynecology, at Western Reserve University, Cleveland, made such a report at the State meeting. He attributed his success to careful preparation of the patient before operation and a quite modern (for even 1942) sterilization of the wound area, the operator and his assistants. For the latter he strongly advised a complete change of costume; at least ten minutes of vigorous scrubbing of the hands and arms by a steam sterilized brush and ten changes of the boiled water. He had spigots constructed to be controlled by foot pressure. For two minutes the hands were immersed in sterilized solution of potassium permanganate followed by washing in a sterilized warm solution of oxalic acid to remove the stain of the first solution. Finally the hands were immersed in a one to five hundred solution of bichloride of mercury for two minutes. Sterilized rubber gloves were next put on the operator's hands. All coming near the field of operation wore a sterilized muslin cap to keep dandruff from falling from their heads. No mention is made of a face mask.

The preparation of the instruments is very interesting though but two items will be mentioned. 1. The ligatures are wound on glass reels in glass tubes plugged with cotton batting, and the tubes and contents are sterilized in a steam sterilizer or autoclave. 2. Sponges of sterilized gauze were used instead of using marine sponges which were tedious to prepare and to avoid using the same sponge two or more times. Another custom, no longer used, was the free irrigation of the abdominal cavity with normal salt solution before closing the wound, leaving 300 to 500 cc. in the abdominal cavity. He used glass drainage tubes beginning in 1894, when he started to use strips of plain sterilized gauze for excessive bleeding or pus infection.

"The Attitude That Should Be Assumed by the Medical Profession Toward Christian Science and Allied Fads" was the title of the paper presented by J. C. Oliver of Cincinnati. In it he said, "They endeavor to supplant material treatment by a spiritual or religious agency. At least the advocates of these methods endeavor to use the Bible as their textbook on modern medicine". To continue quotations from Dr. Oliver's address: "Does the Bible anywhere teach that men must rely on the supernatural and leave out of consideration the natural?" . . . "The Creator has so constituted the human body as to render it

able to throw off certain indispositions without assistance. To a logical and well informed mind this is the foundation-stone upon which all christian science or divine healing, rests". Another element that enters into these fads is faith. Faith or trust in one's physician is very important in the battle with many diseases for it is this faith that permits "tincture of time" to act. A third important element to be considered is the mental diversion wrought by having the patient fix his (usually her) mind on some other subject than disease, so that the ills would gradually sink into insignificance. Mental diversion is very important in the handling of any patient ill with either a curable or incurable disease. Surgery with its long vista of possibilities opens up the labors of the physician so he is enabled to save thousands of lives that would surely be lost were he to rely upon a policy of waiting, watching, praying, hoping and having faith. Christian Science is proof of an old saying that "a little learning is a dangerous thing", and in many cases, "it is the most unchristian cowardice and the most devilish mockery". In Dr. Oliver's last paragraph of his paper is the following: "May we not trust that each physician will feel it his duty to act as a missionary among these benighted brethren and that he will kindly and patiently seek to woo them by reason from the fake gods of superstition and ignorance, for these are the foundation upon which they build". This paper was wholeheartedly discussed by Drs. P. M. Foshay of Cleveland, C. A. L. Reed and T. A. Reamy of Cincinnati, F. F. Lawrence of Columbus, E. S. Stevens of Lebanon, and others.

The following poem, written by Richard Banister of England prior to 1626, is of interest as it is still a true statement of the public's variable opinion of the surgical profession:

A Surgeon Divided Into Four Parts: or the Surgeon's Comment

A Surgeon's like a God whom they adore:
When death about the sicke mans bed doth sore,
Then hath he great respect, and high regard,
Fed with the smoaky promises of reward.

But as the Patient doth begin to mend,
So doth the Surgeons God-head straightwayes
end:

Yet such attendance on him still is given.
As if he were an Angel come from Heaven.

When health and strength the Patients doth
inspire,

To sleepe, eate, walke, and sit up by the fire:
Then straight the Surgeons state Angellicall,
In their respect unto a man doth fall.

Last, when the sicke or sore are heal'd againe,
And that the Surgeon seekes reward for's paine:
Hee's neither counted God, nor Angel than,
Nor is he intainted as a man.
But (through ingratitude) that hellish evill,
They bid the Surgeon, welcome as the Devill.

Speed-Up in Recruiting of Medical Officers Anticipated Under New Procedure Begun in Ohio and 20 Other States

A CHANGE in methods of recruiting medical officers is now in effect in Ohio and 20 other states, based on an agreement between the Army, Navy and Directing Board, Procurement and Assignment Service for Physicians, War Manpower Commission.

It should accelerate the recruiting of available physicians for the armed forces and eliminate the lag which has taken place during the past several months in efforts to increase the size of the medical corps of the Army and Navy, primarily because too many physicians who have been classified as available by the Procurement and Assignment Service have failed to apply for commissions.

According to the Directing Board at Washington, additional medical officers are needed to keep the medical corps of both branches in line with the expansion of both the Army and Navy and to replace medical officers among the casualties.

HOW PLAN WILL WORK

Following is a brief description of the new recruiting procedure:

1. The Ohio Procurement and Assignment Committee has submitted the names of all Ohio physicians who have been declared available and who have indicated to the committee on post-card Form No. 174 their choice of service (Army, Air Force or Navy) **but who have failed to apply for a commission**, to the Army Officer Procurement Service, 733 Huntington Bank Building, Columbus, representing the Fifth Service Command, and to the Naval Officer Procurement Service for this district, 141 W. Jackson Boulevard, Chicago. This is in compliance with instructions from the Directing Board.

2. The committee also has submitted to the two procurement services the names of Ohio physicians who have been certified to the Directing Board at Washington as available and who have been issued invitations from Washington to apply for a commission **but who have not sent Form No. 174, indicating choice of service**, to Dr. Robert Conard, chairman of the Ohio Procurement and Assignment Committee, 1005 Hartman Theater Building, Columbus.

3. In the near future, the Ohio committee will submit to the procurement services and to the Directing Board at Washington the names of additional Ohio physicians who are considered available for military service.

4. The physicians whose names are submitted to the procurement services on these lists will be interviewed by representatives of the Army and Navy procurement services and efforts made to get them to apply for a commission. The services are expected to apportion the lists on a ratio of 8 Army to 3 Navy and to cooperate in signing up physicians in accordance with the physician's preference for branch of service, if at all possible.

5. Periodically, the Army and Navy procurement offices will prepare lists of names of physicians who refuse to apply for a commission after being interviewed and after being given a reasonable time to do so. **These names will be transmitted to the State Director of Selective Service** by the procurement services, asking that consideration be given to draft reclassification for the physicians listed. Their names also will be transmitted to the Ohio Procurement and Assignment Committee which has been instructed by the Directing Board, Washington, to take similar action, namely, to request the State Director of Selective Service to take whatever action he can under the law and regulations to have such physicians reclassified and called up for induction.

WILL PROTECT LOCAL AREAS

In clearing physicians as available under the new procedure, every effort will be made to list only those who can be spared from local communities without jeopardizing local medical and health services, Dr. Conard stated in commenting on the new recruiting procedure. Lists are being re-analyzed, he pointed out, and the committee is keenly aware of its responsibilities, realizing that it has an obligation to the civilian population as well as to the armed forces.

Dr. Conard also stated that the committee has been exerting considerable effort in assisting hospitals to retain an adequate number of residents for minimum services. Requests for deferments of residents in cases where the need for such residents has been shown, have been filed with the Directing Board at Washington and that agency has been in touch with the surgeons general of the Army and Navy on these requests. Dr. Conard emphasized, however, that the final decision on deferment of residents who hold a commission rests with the War or Navy department and that there can be no assurance that all requests will be approved. Up to now some requests for deferment have been approved and some rejected, he said.

Number of Ohio Physicians In Services Increased By 25 During the Past Month; Data By Counties and Promotions

SINCE the June issue of *The Journal* was issued, 25 additional Ohio physicians have entered military or full-time governmental service. As of June 23, the total number of Ohio physicians reported to *The Journal* as holding commissions in the armed forces or appointments with non-military governmental agencies, was 2,514, classified as follows: Army, 2,165; Navy, 299; other services, 50.

Following are the names of physicians reported as having entered the services in the past month, the breakdown by counties and promotions. These lists are unofficial and if there are errors *The Journal* would appreciate being informed promptly:

THOSE RECEIVING APPOINTMENTS

Name	City	Rank
Agee, Ernest B., Jr.	Cincinnati	Capt., U.S.A.
Allen, Alfred G.	Cincinnati	1st Lt., U.S.A.
Benko, J. M.	Youngstown	1st Lt., U.S.A.
Budd, John H.	Cleveland	1st Lt., U.S.A.
Cunningham, James K.	Cincinnati	Lt. (j.g.), U.S.N.
Dillon, Lowell O.	Lima	1st Lt., U.S.A.
Faessler, Edwin C.	Cincinnati	1st Lt., U.S.A.
Fauster, John U., Jr.	Defiance	Major, U.S.A.
Forney, Robert L.	Cincinnati	1st Lt., U.S.A.
Fowler, N. O.	Cincinnati	1st Lt., U.S.A.
Jaffe, Hyman	Cleveland	1st Lt., U.S.A.
Levine, R. R.	Akron	1st Lt., U.S.A.
Leyrer, Carl A.	Hamilton	1st Lt., U.S.A.
Miglionico, John	Cleveland	1st Lt., U.S.A.
Petti, Michael A.	Cleveland	Lt. (j.g.), U.S.N.
Renner, Wilbur W. O.	Lancaster	1st Lt., U.S.A.
Sapadin, Albert	Cincinnati	1st Lt., U.S.A.
Sonneman, Charles C.	Cincinnati	1st Lt., U.S.N.
Spiegel, Frederick S.	Cincinnati	1st Lt., U.S.A.
Venar, Y. A.	Cleveland	Capt., U.S.A.
Wiggers, Russell F.	Cincinnati	1st Lt., U.S.A.
Zollinger, Wm. K.	Cincinnati	1st Lt., U.S.A.
	* * *	
Name	City	Rank
Miller, Michael M.	Cleveland	
Asst. Surg. (R)		U.S.P.H.S.
Nickerson, J. R.	Akron	
Lt. M.C.		U.S.P.H.S.
Strashin, Israel	Akron	
Capt.		Canadian Army Medical Corps

PROMOTIONS

Alexander, Fred W.	Cleveland	Major, U.S.A.
Armbrecht, Geo. L.	Youngstown	Major, U.S.A.
Brandmiller, Barclay M.	Youngstown	Capt., U.S.A.
Burkons, Harold F.	Shaker Heights	Capt., U.S.A.
Caldwell, H. E.	Delaware	Lt. Col., U.S.A.

Name	City	Rank
Corwin, Wm. W.	Galion	Major, U.S.A.
Davin, W. A.	Hamilton	Major, U.S.A.
Davies, Drew L.	Columbus	Comdr., U.S.N.
DeCicco, Gabriel E.	Youngstown	Capt., U.S.A.
Denny, W. L.	Cambridge	Major, U.S.A.
Doeing, Carl T.	Springfield	Major, U.S.A.
Eckel, Harold W.	Cincinnati	Capt., U.S.A.
Friedmar, Sam	Toledo	Capt., U.S.A.
Gotwald, David K.	Springfield	Major, U.S.A.
Gross, Harold T.	Columbus	Lt., U.S.N.
Harding, John R.	Cincinnati	Major, U.S.A.
Hartman, Jerome	Dayton	Comdr., U.S.N.
Heywood, Howard W.	Cincinnati	Capt., U.S.A.
Hirsch, Fred C.	Toledo	Lt. Comdr., U.S.N.
Jennings, Wm. Paul	Cincinnati	Major, U.S.A.
Kaval, V. T.	Cleveland	Capt., U.S.A.
Lapp, Henry Thomas	Utica	Major, U.S.A.
Lemon, Geo. H.	Fayette	Capt., U.S.A.
Loeb, Wm. Jos.	Cleveland Heights	Major, U.S.A.
Machle, Willard F.	Cincinnati	Col., U.S.A.
Marley, Harold V.	Cleveland	Capt., U.S.A.
Mayfield, F. H.	Cincinnati	Major, U.S.A.
McKinley, M. P.	Cleveland	Major, U.S.A.
Sears, Clarence W.	Youngstown	Major, U.S.A.
Smith, Fredk. G.	Marion	Major, U.S.A.
Sparling, Wm. R.	London	Major, U.S.A.
Tapke, Robert J.	Cincinnati	Major, U.S.A.
Tschantz, Robert C.	Canton	Capt., U.S.A.
Warm, Herbert	Hamilton	Lt. Comdr., U.S.N.

TABULATION BY COUNTIES

Adams	2	Guernsey	5	Muskingum	7
Allen	38	Hamilton	352	Noble	1
Ashland	11	Hancock	13	Ottawa	8
Ashtabula	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	4
Belmont	10	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	25	Holmes	2	Preble	7
Carroll	1	Huron	13	Putnam	5
Champaign	8	Jackson	1	Richland	39
Clark	31	Jefferson	31	Ross	20
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	17	Scioto	18
Columbiana	10	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	9	Stark	90
Cuyahoga	597	Lorain	35	Summit	131
Darke	6	Lucas	149	Trumbull	28
Defiance	4	Madison	6	Tuscarawas	18
Delaware	5	Mahoning	103	Union	1
Erie	10	Marion	16	Van Wert	9
Fairfield	9	Medina	12	Vinton	2
Fayette	2	Meigs	1	Warren	4
Franklin	206	Mercer	6	Washington	6
Fulton	6	Miami	13	Wayne	12
Gallia	6	Monroe	1	Williams	8
Geauga	3	Montgomery	124	Wood	15
Greene	8	Morgan	3	Wyandot	3
Total					2514

Cincinnati—Recent promotions at the University of Cincinnati College of Medicine include Dr. James H. Bennett, associate professor of anesthesia, and Dr. William P. Gillespie, associate professor of obstetrics.

Council on Medical Services and Public Relations Named by A.M.A. at Recent Meeting; Dr. McCormick Chosen A Member; Additional News on Chicago Session

CONSIDERATION of and action on war and postwar problems of affecting public health and the practice of medicine dominated the proceedings of the House of Delegates of the American Medical Association, June 7-9, in Chicago.

Two progressive steps were taken by the House of Delegates to strengthen medical organization for postwar impacts and to provide the means for broader participation by the medical profession, than heretofore, in the planning of programs to meet health and medical problems which will arise during and at the end of the war.

A Council on Medical Services and Public Relations was created by action of the delegates, to consist of the president, immediate past-president, secretary and one member of the Board of Trustees of the A.M.A. and six additional members, selected as nearly as possible on a geographical basis. The Board of Trustees was authorized to name six physicians to serve on the new council for the first year.



DR. EDW. J. McCORMICK

Hereafter two members are to be elected by the House of Delegates for one year, two for two years and two for three years from nominations made by the Board of Trustees. Immediately after the final session of the House of Delegates, the Board of Trustees selected the following to serve on the Council on Medical Services and Public Relations for the ensuing year: Dr. James E. Paullin, Atlanta, president of the A.M.A.; Brig. Gen. Fred W. Rankin, Lexington, Ky., the immediate past president; Dr. Olin West, Chicago, secretary and general manager of the A.M.A.; Dr. Roger I. Lee, Boston, chairman of the Board of Trustees; Dr. Edward J. McCormick, Toledo, immediate past-president of the Ohio State Medical Association; Dr. Louis H. Bauer, Hempstead, L.I.; Dr. John H. Fitzgibbon, Portland, Ore.; Dr. Alfred W. Adson, Rochester, Minn.; Dr. James R. McVay, Kansas City, Mo.; and Dr. W. S. Leathers, Nashville, Tenn.

FUNCTIONS OF THE COUNCIL

The functions of the new Council as drafted by the House of Delegates will be as follows:

1. To make available facts, data and medi-

cal opinions with respect to timely and adequate rendition of medical care to the American people.

2. To inform the constituent associations and component societies of proposed changes affecting medical care in the nation.

3. To inform constituent associations and component societies regarding the activities of the Council.

4. To investigate matters pertaining to the economic, social and similar aspects of medical care for the people.

5. To study and suggest means for the distribution of medical services to the public consistent with the principles adopted by the House of Delegates.

6. To develop and assist committees on medical service and public relations originating within the constituent associations and component societies of the American Medical Association.

In the exercise of its functions the Council will utilize the functions and personnel of the Bureau of Legal Medicine and Legislation, the Bureau of Medical Economics and the Department of Public Relations in the headquarters office of the A.M.A. in Chicago.

POSTWAR COMMITTEE ESTABLISHED

The House of Delegates also authorized the creation of Committee on the Planning of Postwar Medical Service, following a recommendation made by President Paullin in his presidential address. Such a committee had been established by the Board of Trustees prior to the meeting, so the House of Delegates instructed the Board to continue that committee on a permanent basis. Its personnel is: Dr. Roger I. Lee, Boston, chairman; Brig. Gen. Fred W. Rankin, Lexington, Ky.; Dr. Francis G. Blake, New Haven; Dr. James E. Paullin, Atlanta, president of the A.M.A.; Dr. Harrison H. Shoulders, Nashville, speaker of the House of Delegates; Dr. Alan Gregg, New York, medical director of the Rockefeller Foundation; Capt. William J. C. Agnew, U.S.N., Washington, D.C., and Dr. Warren F. Draper, assistant surgeon general, U.S. Public Health Service, Washington, D.C.

OHIO RESOLUTION REJECTED

Much to the disappointment of a majority of the Ohio delegation, the House of Delegates rejected a resolution which it presented on authorization of the House of Delegates of the Ohio State

Medical Association, instructing the Board of Trustees of the American Medical Association to establish a full-time executive office in Washington, D.C., to serve as a liaison on legislative and governmental activities pertaining to medical and health matters.

Several other similar resolutions were introduced by delegates from other states and they, also, were rejected on recommendation of the Reference Committee on Legislation and Public Relations at the time the committee presented a favorable recommendation for the creation of a Council on Medical Services and Public Relations. It was pointed out that the Board of Trustees now had the power to establish an office in Washington if it so desired and that perhaps the newly-created Council would suggest to the Board that this be done. The Ohio delegation felt that the House of Delegates should specifically instruct the Board to create a Washington office. It attempted to have the reference committee report amended to include such a provision after the resolution from Ohio had been rejected by the committee, but the proposed amendment was also rejected on the floor of the house.

Off the record, a considerable number of delegates from other states expressed themselves as believing that eventually an A.M.A. office should and would be established at Washington but felt that now might not be the appropriate time for doing so. This logic did not appeal to most of the Ohio delegation who felt that the establishment of a Washington office has been long overdue and that now is certainly the right time for the opening of facilities in the nation's capital which can work closely with all branches of the government and various bureaus and commissions on medical and health matters.

REPORTS ON HOSPITAL PRACTICES

Exhaustive reports were presented by special committees of the Board of Trustees dealing with the rendering of medical services in connection with prepayment plans for hospital service and with the relationship of certain special types of service, such as those of the roentgenologist, the clinical pathologist and the anesthetist to general medical service in hospitals. These reports pointed out that conditions vary in each area with regard to such relationships and that, therefore, adjustments might best be made in each area according to the special conditions that may prevail. The House of Delegates took specific action on one matter relating to the Blue Cross hospital plans by requesting the Board of Trustees of the American Hospital Association to disapprove a proposed new all-inclusive contract for Blue Cross plans, which contract includes coverages for certain medical services.

A recommendation of the Reference Committee

on Legislation and Public Relations, in reporting back with favorable action a resolution presented by the Oregon delegation, that the program of the Federal Government to provide maternity medical and hospital care for wives of enlisted men and medical services for the infants of such men be modified to provide for cash allotments to wives in need of financial assistance for such medical services, was unanimously adopted by the

Agreed! And We Still Think It's a Job for the A.M.A.

Following is an excerpt from an address made before the recent annual meeting of the Minnesota State Medical Association by Dr. Walter H. Judd, who represents the Fifth Minnesota District in the United States Congress and who should know whereof he speaks:

"I was amazed when I went to Washington to find that there were no headquarters anywhere in Washington where either the Congress or the departments or agencies could get authoritative advice on medical matters. Small wonder that they have made mistakes, and such mistakes are serious. It's the hardest thing in the world to correct a mistake when once it is enacted into law by the Congress and even harder once it has been publicly released as a departmental directive.

"What we medical men must do is to establish a headquarters and provide advice on the spot in Washington, not in the sense of lobbying at all, but with the object of giving counsel. You know, most of us in Congress are trying to do right, at least if our own interests aren't too seriously involved. But we need help and the medical profession must provide it."

House of Delegates. This plan would be in contrast to the present proposal which would establish an obstetrical and pediatric program with standardized fees under the direct supervision of state departments of health and indirectly under the control of the Children's Bureau, U.S. Department of Labor. The committee pointed out that the problem could be met by merely increasing the present cash allotments made to service men's families to assist them in obtaining the necessities of life, that this plan would be more desirable, and would permit the service man's wife and a physician of her choice to mutually agree on services desired, fees, etc.

At the opening session of the House of Delegates the Distinguished Service Award was con-

ferred on Dr. Elliott Proctor Joslin, Boston, world famous as a contributor to present day knowledge of diabetes and as an educator in that field. At its closing session, the House of Delegates named Dr. Herman Louis Kretschmer, Chicago, as president-elect. Dr. Kretschmer, for the past 10 years treasurer of the A.M.A., will succeed Dr. Paullin as president in 1944. Other officers elected were: Dr. John J. Amesse, Denver, vice president; Dr. Olin West, Chicago, secretary and general manager; Dr. Josiah J. Moore, Chicago, treasurer; Dr. H. H. Shoulders, Nashville, speaker of the house, and Dr. R. W. Fouts, Omaha, vice speaker. The following were re-elected members of the Board of Trustees; Dr. Ernest E. Iron, Chicago, and Dr. William F. Braasch, Rochester, Minn. It was voted to hold the 1946 meeting in San Francisco. The 1944 meeting is scheduled for St. Louis and the 1945 meeting for New York City.

OHIO WELL REPRESENTED

Ohio was represented officially at the meeting by seven delegates, namely: Dr. Carl R. Steinke, Akron; Dr. Parke G. Smith, Cincinnati; Dr. William M. Skipp, Youngstown; Dr. Barney J. Hein, Toledo; Dr. George Woodhouse, Pleasant Hill; Dr. Edward J. McCormick, Toledo; and Dr. Charles R. Meek, Lorain, alternate for Dr. H. V. Paryzek, Cleveland. Two other Ohio physicians were voting members of the House, representing scientific sections, namely: Dr. Clyde L. Cummer, delegate of the Section on Dermatology and Syphilology, and Dr. Roy Scott, Cleveland, delegate of the Section on the Practice of Medicine. Dr. Geo. Edw. Follansbee, Cleveland, chairman of the Judicial Council, was a member ex-officio without vote of the House.

The re-apportionment of delegates for the next three years resulted in the awarding of one additional delegate to Ohio, increasing the total number of delegates from seven to eight.

The following Ohio physicians served on reference committees: Dr. Smith, Committee on Legislation and Public Relations; Dr. Hein, Committee on Executive Session; and Dr. Woodhouse, Committee on Tellers.

Those who attended the meeting as observers were Dr. C. C. Sherburne, Columbus, president of the Ohio State Medical Association; Dr. H. M. Platter, secretary of the State Medical Board and member of the Association's Committee on Public Relations; Charles S. Nelson and George H. Saville, executive secretary and assistant executive secretary, respectively.

Columbus—New officers of the Columbus Eye, Ear, Nose and Throat Society are: Dr. H. D. Emswiler, chairman, and Dr. Dan G. Sanor, secretary-treasurer.

OCD Advises Gas Cleansing Stations at Hospitals

Hospitals should make complete plans for the immediate establishment, when needed, of "gas cleansing stations" for the care of injured persons who have been exposed to war gases, the Medical Division of the Office of Civilian Defense advises. Large communities should establish at least one gas cleansing station without delay for training purposes.

The OCD recommends that the term "gas cleansing" be used to describe the procedure of removing vesicant liquids from persons and that the term "decontamination" be reserved for areas and objects.

The primary purpose of gas cleansing stations is the protection of hospitals and casualty stations and their staffs and patients from contamination by injured persons who have been exposed to vesicant agents. Contaminated persons who are not disabled are expected to cleanse themselves in the nearest private home or in other local facilities.

Existing facilities in casualty receiving hospitals must be converted into gas cleansing stations, it is pointed out, since under present conditions of scarcity of materials and manpower, construction of new facilities is generally not justified. Hospital facilities that should prove suitable are: hydrotherapy rooms, nurses' or internes' locker and shower rooms, part of the outpatient department, garages or other separate structures. In the event these are not available, facilities to care for persons who are both injured and contaminated must be arranged in schools, gymnasiums, swimming pools, shower rooms, club houses and community centers.

Cleansing stations should be equipped to take care of one-third to one-half of the hourly casualty receiving capacity of the hospital to be served, the OCD recommends. The professional staff will consist of mobile medical teams assigned when the station is activated, supplemented by additional attendants from the Emergency Medical Service. In addition to cleansing and emergency treatment, the staff of the gas cleansing station will assist in undressing the injured, moving stretchers, caring for clothing and valuables, maintaining supplies and dressing wounds.

It is recommended that cleansing stations be established at or near hospitals and casualty stations which they are to serve. Every hospital that may be required to handle an appreciable number of casualties should have access to such cleansing station facilities.

The local Chief of Emergency Medical Service is responsible for the development of these stations, with the advice of the Senior Gas Officer of the community.

Army's New 1500-Bed General Hospital Near Cambridge Is Dedicated and Now Treating War Casualties

BUILT at a cost of \$4,000,000 and on a site consisting of approximately 260 acres located four miles north of Cambridge, Guernsey County, is Fletcher General Hospital, one of the newest Federal institutions for the care of war casualties.

Named after the late Colonel John Pierpont Fletcher, U.S. Army Medical Corps, the hospital was dedicated on Memorial Day with a flag-raising ceremony participated in by the daughter of Colonel Fletcher and an address by United States Senator Harold R. Burton, Cleveland. The hospital received its first patients—113 wounded men—on June 25.

TOTAL OF 125 BUILDINGS

The physical plant, situated in a cluster of hills, consists of 125 buildings occupying 72 acres, while the entire grounds cover a total of 260 acres. The total bed capacity is 1520. Because of its distance from the city, the hospital is a small town by itself, having its own sewage disposal plant, three large heating plants, laundry, and a fire department. Water is piped from Cambridge.

Approximately two-thirds of the patients will be surgical and many of these orthopedic. There are seven up-to-date operating rooms, all thoroughly equipped, and necessary laboratories. The buildings are constructed of brick and tile, in contrast with the usual general hospital built of wood.

There is a two-story Red Cross Building, all other buildings being one story in height. This building has a large theatre seating about 600 and a library. On the second story are several guest rooms for visiting relatives and friends of the patients.

LARGE STAFF ASSIGNED

Commanding officer of the hospital is Colonel T. E. Darby and the executive officer is Lt. Col. K. H. Bailey. It is anticipated that the personnel commanded by Colonel Darby and Lt. Col. Bailey will ultimately include 83 officers, 55 of whom will be medical officers, and other staff members totaling more than 700, including 165 nurses and 150 WAACs.

Colonel Darby has been in the Medical Corps of the Army for 33 years and thus has had much administrative, as well as professional and teaching experience. He is a native of Maryland, took his medical degree at the University of Maryland and served four years as a physician in Panama before entering the Army. He has

served tours of duty in Panama, Mexico, and the Philippines, and during the last war was instructor in the medical officer training camps. His most recent hospital administrative post was as Commanding Officer of the General Hospital at Ft. Sam Houston, Texas. Col. Darby was a close personal friend of the late Col. Fletcher. Lt. Col. Bailey is from North Carolina and has been in the Medical Corps since 1922 as a specialist in internal medicine and later in ad-

Another Hospital Near Cleveland

Some of the contracts have been let by Army Engineers for the new 1515-bed hospital to be built on York Road at the Parma-Parma Heights city line near Cleveland. The institution will comprise 107 brick buildings on a 130-acre site. It is anticipated that construction will be completed by the end of the year.

ministrative work. He arrived at Fletcher Hospital in December, 1942, after spending two years as Commanding Officer of a Base Hospital in Iceland.

PLAN MEDICAL MEETINGS THERE

Contacts have been made with the Guernsey County Medical Society so that there will be an interchange of speakers between the hospital and the local medical organization. It is planned to have medical meetings at the hospital as soon as facilities will be available.

Colonel Fletcher, after whom the hospital was named, was born in Portage, Wisconsin, July 17, 1884, and died May 10, 1941. He received his M.D. from the University of Virginia in 1908 and was commissioned a first lieutenant in the Medical Corps in 1910. During the World War Col. Fletcher represented the Medical Department in the standardization of equipment in the Office of the Director of Purchases. His most notable achievement was in the field of development of medical field equipment. He was Director of the Medical Department Equipment Laboratory at Carlisle Barracks, Pennsylvania, from 1920 until June 22, 1930, and in this capacity he was largely responsible for the improvements in medical field equipment as used in our Army today.

In 1920, Col. Fletcher suffered an attack of acute epidemic encephalitis. In spite of this, he

BIRD'S-EYE VIEW OF FLETCHER GENERAL HOSPITAL AND GROUNDS



(This photo, and that on the cover page, furnished through the courtesy of The Ohio State Journal, Columbus)

continued his work under great physical handicaps. He was retired for physical disability in 1930, and died at Carlisle, Pennsylvania, eleven years later. During the period of his retirement, he continued his active interest in medical equipment and was a source of unfailing inspiration

and guidance to his successors. He held the Philippine Campaign Medal for service from December 16, 1911, to January 10, 1913. He was a fellow of the American Medical Association and a member of the Association of Military Surgeons of the United States.

Military Surgeons Plan Meeting In Philadelphia, Oct. 21-23

The Association of Military Surgeons of the United States will hold its 51st annual convention at the Bellevue-Stratford Hotel, Philadelphia, October 21-23, inclusive.

The three-day convention will assemble doctors from all the current war fronts where United States forces are fighting, and from the great base hospitals where rehabilitation of the wounded is in progress. They will bring with them information on the latest techniques of wartime medicine and surgery. Numerous forum lectures, practical demonstrations, moving pictures and teaching panels are planned to present the wealth of data to the convention. Honorary chairman of the convention this year is Rear Admiral Ross T. McIntire, Surgeon General of the Navy.

How "When Bobby Goes To School" Film May Be Obtained

Under the rules laid down by the American Academy of Pediatrics, their educational-to-the-public film, "When Bobby Goes to School", may be exhibited to the public by any licensed physician in the United States. All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

"When Bobby Goes to School" is a 16-mm. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to Mead Johnson & Company.

Digests of Important Medical and Health Laws Enacted At Recent Regular Session of the Ohio General Assembly

WHAT seemed to many observers as an unnecessarily prolonged session of the Ohio General Assembly was adjourned sine die on June 24, working sessions having been concluded on June 11. As a contrast to the past several sessions of the State Legislature, the session of the 95th Assembly was marked by factional squabbles and bickering over petty matters, causing much delay and inefficiency.

No proposals harmful to public health and medical practice were enacted, although it took plenty of action on the part of the medical profession to offset the activities of various cult and limited practice groups which sought to scuttle the Medical Practice Act and obtain unrestricted rights for such practitioners. An alarming amount of support for dangerous proposals sponsored by these groups was manifested among certain blocs of legislators. This attests to the often-spoken warning that the first line of defense is at the voting booths where ballots are cast for candidates to the General Assembly.

On the other hand, the 95th General Assembly as a whole was conservative and sound on medical and public health questions. It enacted a number of laws relating to public health and medical services.

Digests of some of the more important measures enacted follow. Readers who may wish copies of such laws may obtain them by writing directly to the Secretary of State, State House, Columbus.

FOUR MEASURES DIRECTLY AFFECTING PUBLIC HEALTH ENACTED

A number of measures having a direct bearing on public health and public health administration were enacted and have been approved by the Governor.

House Bill 217, a lengthy act recodifying the school laws, contains a number of provisions with respect to health and medical procedures in connection with administration of the schools. It permits school boards to make rules and regulations to prevent the spread of communicable diseases, giving them the power to require immunization in addition to vaccination; authorizes school physicians to make tests to determine the existence of hearing defects among pupils and authorizes schools and boards of health to pool funds to hire school nurses, in addition to school physicians and dentists, and prohibits the construction of institutions for the care of the mentally ill, insane, feeble-minded and epileptic and persons suffering with communicable diseases within 2,000 feet of the premises of a private, public or parochial school. It becomes effective September 16.

Senate Bill 117, effective May 24, prohibits the slaughtering and sale of calves less than four weeks old. Detection of diseased calves cannot be determined when they are younger than four weeks, according to inspectors for the State Department of Agriculture.

House Bill 151 transfers from the State Department of Health to local boards of health the authority to order hospitalization of persons with tuberculosis. It is effective August 20.

House Bill 42, effective August 31, provides for more rigid inspection of mattresses and bedding material and for proper labeling of such material, especially that offered for resale.

NEW LAWS RELATING TO HOSPITALS AND STATE INSTITUTIONS

Four proposals affecting hospitals or the management of state welfare institutions were enacted.

Senate Bill 112, effective August 19, provides that the county commissioners may make an annual lump sum payment to the board of county tuberculosis hospital, if any, for the operation of the institution. It is a permissive measure. Its application will assist the hospital board in operating the hospital more efficiently than under the present procedure where payments are made periodically.

Senate Bill 27, which becomes effective July 26, authorizes the creation of a commission to dispose of the present buildings and sites of the State School of the Deaf and State School for the Blind, to purchase new sites for such schools and to supervise the erection of new schools on the new sites when funds are made available for such construction.

House Bill 327 makes a real improvement in the procedure for payment of hospitals caring for indigents. It provides that cities and township trustees shall pay to a hospital the

established ward rate of the hospital caring for an indigent unless there is an existing agreement between the hospital and the city or trustees for such services. The act strikes out of Section 3480, which also refers to payment of physicians for medical care, the provision that the cities and trustees must pay for medical services only what the city or trustees "determine to be just and reasonable". Deletion of this bad provision will now give a physician an opportunity to go to court to collect a bill against the city or township for medical services and let the court decide whether or not his charges are "just and reasonable". This measure becomes effective September 16.

House Bill 383, effective August 25, provides that the costs of providing maintenance, clothing and burial of inmates of state welfare institutions shall be borne by the state if relatives of such inmates are unable to bear such expenses.

REQUIREMENTS FOR OSTEOPATHS RAISED UNDER NEW SYSTEM

Several proposals to amend the Medical Practice Act were introduced but only one was enacted—Substitute House Bill 112 which had the approval of The Council of the Ohio State Medical Association. It was drafted by a subcommittee of the House Committee on Organization of State Government and acted upon in lieu of the original House Bill 112 which had many objectionable features.

Substitute House Bill 112, which will become a law on July 30, preserves the high standards of the Medical Practice Act and the single-board examining and licensing system. It extends broader privileges to future graduates of osteopathic schools providing such graduates have attended approved colleges, can meet higher pre-professional school requirements and succeed in passing examinations given by the State Medical Board.

Following are the basic provisions of the measure which repeals the present osteopathic sections of the Medical Practice Act and establishes new procedures for examining and licensing of osteopaths:

1. Enlarges the State Medical Board from seven members to eight members, seven of whom shall be doctors of medicine and one of whom shall be a doctor of osteopathy. Present members of the board will continue to serve the terms for which they were appointed and may be re-appointed when their terms expire. The Governor, with the advice and consent of the Senate as provided in the new law, has appointed Dr. J. O. Watson, Columbus, as the

osteopathic member of the board and he will take office on July 30.

2. From the effective date of the act, graduates of osteopathic schools will be required to meet considerably higher educational requirements and to pass additional examinations given by the State Medical Board in order to obtain a license in Ohio.

3. To qualify for a license in Ohio after the act becomes effective, a graduate of an osteopathic school will have to have these requirements:

- (a) Hold a diploma from an osteopathic school approved by a committee composed of the State Director of Education and two members of the State Medical Board, one of whom will be the osteopathic member. Under the old law the Medical Board had no authority to pass on osteopathic schools, this function having been vested in an osteopathic examining committee.

- (b) Show evidence satisfactory to the entrance examiners of the State Medical Board that he has had at least two years of collegiate work in an approved college of arts and sciences in addition to high school graduation prior to entering osteopathic school. This requirement is identical to that which graduates of medical colleges must meet.

- (c) Pass examinations in the following subjects given by the State Medical Board: Anatomy, physiology, pathology, chemistry, diagnosis, surgery, obstetrics and "such other subjects as the board requires"; also, examinations in materia medica and therapeutics and principles and practice given by the osteopathic member of the board. These are identical to the examinations which graduates of medical schools must take. Under the old law some of these examinations are not given by the board but by an examining committee composed of osteopaths.

4. If an osteopathic physician and surgeon now in practice in Ohio wishes to qualify to obtain the broader license which will be conferred on future graduates of osteopathic schools, if they are successful in meeting the requirements just enumerated, he must meet the following requirements:

- (a) Hold a diploma from an osteopathic college approved by the three-member committee which is referred to in paragraph 3-a.

- (b) Show evidence satisfactory to the entrance examiner of the board that he has had at least two years of collegiate work in an approved college of arts and sciences or show evidence satisfactory to the three-member committee, already referred to, that he has taken suitable post-graduate work amounting in the aggregate to 36 weeks (nine months)

in a medical or osteopathic school or in a hospital.

(c) Must have been engaged in practice in Ohio for a period of not less than five years.

(d) Must pass examinations in materia medica and therapeutics and principles and practice, given by the osteopathic member of the State Medical Board, and in bacteriology, preventive medicine and hygiene, given by the board as a whole.

5. All of the present osteopathic sections of the Medical Practice Act are repealed, thus abolishing the osteopathic examining committee. All future graduates of osteopathic schools must meet the higher requirements which have been enumerated and obtain a license under the procedure which has been described. Osteopaths now in practice in Ohio may continue to practice osteopathy or osteopathy and surgery under present restrictions as to prescribing and administering drugs. Such practitioners cannot practice under a broader license unless they qualify as set forth in paragraph 4.

MOST WELFARE BILLS FAIL; THREE ENACTED ARE SUMMARIZED

Dozens of bills dealing with welfare activities were introduced but most of them were defeated or were not brought up for passage. One proposal, **House Bill 140**, which permits any county to establish a county welfare department for the administration of most of the local welfare activities, was enacted and will be effective January 1, 1944. It was introduced as a compulsory measure but was changed to make it permissive. Another bill, **Senate Bill 69**, to renew the present law permitting subdivisions to call special elections for action on extra levies for welfare, relief and operating expenses, was enacted and became effective April 2. **House Bill 279**, to recodify laws relating to adoption of children was enacted and is effective January 1, 1944.

ONLY ONE MEASURE AFFECTING WORKMEN'S COMPENSATION PASSED

Only one measure amending the Workmen's Compensation Law was enacted—**Senate Bill 159**. This was the "agreed" bill supported by both management and labor. Its chief provisions are: Permits employes in Ohio to receive compensation for occupational diseases without the requirement of 90-day residence; provides a minimum of \$14.00 per week for permanent partial disability; establishes a partial maintenance benefit of \$10.00 per week for 26 weeks and medical supervision for a worker diagnosed as susceptible to silicosis, provided such worker is transferred

to another non-exposed job or voluntarily leaves his employment of exposure; provides workmen's compensation coverage for school superintendents and village marshals; and exempts agriculture and other small enterprises from paying a flat minimum premium. The original bill provided for an increase in the salaries of members of the State Industrial Commission from \$5,000 to \$6,000 annually but the increase was not approved by the House Finance Committee. The act was effective June 15.

SOME MISCELLANEOUS BILLS OF INTEREST WHICH WERE ENACTED

Following are a few miscellaneous bills of interest which were enacted:

House Bill 150, effective August 27, provides that where the coroner of any county is absent from the county for 30 days or more, is in military service, or is unable to discharge the duties of his office because of sickness or other reasons, the county commissioners shall appoint a qualified person (a physician) as acting coroner with all the rights and privileges of the coroner. It provides that the health commissioner of a county may be appointed as acting coroner and that when the coroner or acting coroner is away or unable to perform the duties of the office, a justice of the peace of the county shall be empowered to hold inquests in the presence of the sheriff or deputy sheriff.

Senate Bill 18, effective date unknown as bill has not been signed, provides for the appointment of a Post War Program Commission.

Senate Bill 155, which became effective June 3, expands the powers and authority of the State Defense Council.

Senate Bill 46, effective July 26, makes it a felony to destroy or mutilate a human body unless lawfully permitted to do so—i.e., as a public official for scientific and research purposes after the body has been lawfully obtained.

Senate Bill 36, establishing a uniform procedure for hearings and appeals for all administrative boards, bureaus and commissions issuing licenses and effective September 3.

Senate Joint Resolution 31, recommending that high schools establish courses in first-aid.

THESE PROPOSALS WERE DEFEATED OR DIED IN COMMITTEE

Among the bills defeated were the following: **House Bill 113** to compel a municipal hospital to admit to staff privileges any licensed physician; **House Bill 345** to establish

a separate chiropractic examining and licensing board and to increase the rights and privileges of chiropractors; **House Bill 78** to exempt those claiming to heal by prayer (Christian Science practitioners) from the provisions of the Medical Practice Act; **House Bill 95** to revise the procedure relating to hearings and appeals of charges of violations of the Medical Practice Act; **House Bill 244** to make the Enabling Act for Medical Service Plans inoperable until after the war, sponsored by a group of Cuyahoga County physicians who are not in favor of a medical service plan in that county; **House Bill 192** to provide partial state aid to hospitals for the care of indigents; **House Bill 275** to recodify and define new standards regulating maternity homes and hospitals. **House Bill 300** to re-codify laws relating to the care of children; **Senate Bill 13** to remove the retail sales tax from food sold in hotels and restaurants and medicine sold on prescription.

Townships Liable for Hospitalization in Emergency Cases

A clarification of the responsibilities of township trustees for providing hospitalization for indigents is found in a State Supreme Court decision, No. 29353, handed down recently, in affirming a Court of Appeals declaratory judgment in a case originating in Mansfield.

The Supreme Court held that the following opinions of the Court of Appeals were correct:

1. That under the provisions of General Code Section 3476 and 3480, township trustees are liable for emergency hospital services rendered to indigent people who have a legal settlement in their respective townships, in such amount as such trustees determine to be just and reasonable, provided that due notice is given as directed by Section 3480. (Note: The words "just and reasonable" were stricken from the law by the recent General Assembly in enacting a bill providing the hospital must be paid its customary ward rates in the absence of a contract between the hospital and the trustees.)

2. The term "public support or relief" as used in General Code 3476, in connection with Section 3480, now covers only emergency hospitalization.

3. Township trustees are not now liable for hospital services for people who have a legal settlement therein, in the absence of contract, unless the case be an emergency one.

4. That Section 3480-1 has no application to the case at bar, where the indigent person is removed to the hospital from the township of legal settlement, even though said hospital is not located in said township.

Mail To State Association and Journal Should Carry Delivery Number Which Is "15"

TO simplify distribution and promote delivery of mail for the Ohio State Medical Association and *The Ohio State Medical Journal*, the Post Office Department has assigned them Delivery District No. 15.

All persons writing to the State Association and The Journal from now on should address letters, cards and packages as follows:

"Ohio State Medical Association"
(or Journal)

"1005 Hartman Theater Building"
"Columbus, 15, Ohio"

Licensed By Endorsement

The following physicians have been licensed to practice medicine and surgery by the State Medical Board through endorsement of their licenses to practice in other states: William Abramson, Dayton, Hahnemann Medical College; Gardner G. Bassett, Cleveland, John G. Sholl, III, Cleveland, Harvard Medical School; Walter M. Barth, Cleveland, Robert J. Byrne, Dayton, Alvin B. Friedman, Cleveland, St. Louis University; Robert C. Beardsley, Akron, University of Wisconsin; Alvin J. Carlson, Dayton, Stephen A. Forbes, Wooster, University of Chicago; Bascomb L. Chipley, Chillicothe, University of Maryland; Jacob E. Fish, Toledo, Harry Sigel, Cincinnati, Tufts Medical College; Violet G. P. Halfpenny, Painesville, Tulane Medical School; Max E. Krause, Cleveland, Oklahoma University; Oscar B. Lambert, Dayton, Northwestern University; Paul W. McCracken, Newark, George Washington University; Melville V. Popelar, Cincinnati, Creighton Medical College; Marion E. Sayre, Wilksburg, Pa., Temple Medical College; Elliott W. Schilke, Springfield, University of Nebraska; Clarence W. Spears, Toledo, Rush Medical College; Charles F. B. Weigel, Camden, Jefferson Medical College; Kenneth G. Wilson, Cleveland, University of Minnesota; Leonard J. Yamshon, Cleveland, University of Virginia; Robert H. Angerman, Massillon, Loyola University.

Granville—"Communicable Diseases", was the topic discussed by Dr. Geraldine Crocker at a meeting of the Licking County branch of District No. 6 of the Ohio State Nurses' Association.

Analysis of New Pay-As-You-Go Federal Income Tax Law; How It Will Affect Doctors; Hypothetical Case Cited

THE "Current Tax Payment Act of 1943" which became a law on June 9, 1943, provides for the payment of individual income tax on a current or "pay-as-you-go" basis. It makes no changes in the prevailing tax rates. No new taxes are imposed, nor are any old taxes removed.

As this issue of *The Journal* went to press official regulations and interpretations of the new law were not yet available. However, based on interviews with income tax officials and a study of the law, there is presented herewith a summary of its principal provisions.

1. It imposes, effective July 1, a withholding tax at the source of 20 per cent on wages and salaries in excess of \$24 per week for married persons, \$12 a week for single persons, with an additional \$6 per week allowed for each dependent.

2. Exemptions from the withholding tax include: professional men and others who receive non-wage or non-salary income, including investment income; members of the armed services; farm labor; domestic servants; casual labor; ministers.

FORMS FOR EMPLOYERS

3. This tax will be deducted by the employer from wage or salary checks. Prior to July 1, all employees should have filed with their employer "Employees Withholding Exemption Certificate", (Form W-4) showing the employee's family status and number of dependents. This is for the information of the employer in determining the amount of wages to be exempted from the withholding tax.

Employers who withhold more than \$100 during the month are required to pay the amounts withheld to a depository authorized by the Secretary of the Treasury, with 10 days after the close of each calendar month. Employers who withhold less than \$100 during a month are not required to pay the tax to a depository. However, all employers must make quarterly returns on Form W-1 to their collectors of internal revenue showing the aggregate amount of taxes withheld during the quarter. Returns must be made on or before the last day of the month following the close of each quarter. The first such return will be due on or before October 31, 1943, for the quarter ending September 30, 1943.

Each return must be accompanied by the payment of the full amount of the tax. It will be the duty of employers who withheld more than \$100 during the month to make the payment of the tax in the following form: (1) depository

receipts for the full amount of the tax withheld, or (2) depository receipts for the first two months of the quarterly period, together with a direct remittance for the amount withheld during the last month of the quarterly period.

With the final return for the calendar year, employers must send to the collector on Form W-3 a reconciliation of "Quarterly Returns", (Form W-1) with "statements" to employees of taxes withheld (Form W-2). Employers must provide each employee annually with a "Statement of Income Tax Withheld on Wages." This is Form W-2, and must be delivered to employees on or before January 31 of next year. Employers may obtain all forms mentioned from the Collector of Internal Revenue of their district.

THE "FORGIVENESS" PROVISIONS

4. The bill provides for forgiveness of a full year's tax for all persons owing \$50 or less for the year 1942 or 1943, whichever year's income is lower; a flat \$50 forgiveness for persons owing between \$50 and \$66.67 in the lower brackets of the years 1942 and 1943; and a forgiveness of 75 per cent of the tax for persons owing more than \$66.67 for 1942 or 1943, whichever year's income is the lower.

5. The remaining 25 per cent uncanceled tax will be payable in two equal installments falling due March 15, 1944, and March 15, 1945. Thus in the next two years many taxpayers will have to pay 112½ per cent of a year's income tax annually.

6. The following classifications of taxpayers will be required to file with their district Collector of Internal Revenue on September 15, 1943, an estimate of their income for 1943: All persons, such as professional men, who have incomes of more than \$100 from sources other than wages and salaries; single persons earning more than \$2,700 per year; married persons earning more than \$3,500 per year, and all persons whose 1942 tax is more than their 1943 tax.

PAYMENTS AND DEDUCTIONS

7. Taxpayers must pay the rest of their 1943 income taxes on September 15, 1943, and December 15, 1943. However, in making these payments they will be permitted to deduct the installments paid on March 15 and June 15, 1943, plus the "Victory" tax withheld at the source from January 1 to June 30, 1943, and the withheld tax from July 1 to December 31, 1943.

8. An amended estimated return for the year 1943 may be filed by a taxpayer on December 15,

1943. This may be necessary if his income varies greatly during the last quarter from the amount estimated on September 15. If it is determined when the taxpayer files his complete return on or before March 15, 1944, for the year 1943, that he has underestimated his tax more than 20 per cent, he will be subject to a penalty of six per cent on the difference.

FINAL RETURN DUE NEXT YEAR

9. Each taxpayer is required to file a final return for the year 1943 on or before March 15, 1944, and tax adjustments for the year will be made at that time. If the taxpayer owes more, he must pay that amount in full at that time. If he owes less, the treasury will refund or credit the balance.

10. A special exclusion of \$1,500 yearly over and above regular income tax exemptions will be allowed all members of the armed forces. For a single man, this means \$1,500 plus \$500 for personal exemption, or \$2,000; for a married man without dependent children it is \$1,500 plus \$1,200, a total exemption of \$2,700; for a married man, with a dependent child, it is \$1,500, plus \$1,200, plus \$350, a total exemption of \$3,050. Therefore most enlisted men and lowest-ranking officers with no outside income will have no tax to pay for either 1942 or 1943.

HYPOTHETICAL CASE REVIEWED

Some idea of how the new "pay-as-you-go" tax would operate for a physician in private practice may be obtained from the following hypothetical case. Suppose that the physician's income tax for the year 1942, as computed on his return filed on or before March 15, 1943, was \$1,000. Presumably he would have paid \$250 on March 15, 1943, and \$250 on June 15, 1943. Then on September 15, 1943, he must file a return estimating his income and expenses for the year 1943, and compute the tax on his estimated net income. It can be assumed that most physicians will have a greater income in 1943 than in 1942, so in this particular case, the estimated tax for 1943 is \$1,200. Deducting the total of \$500 paid on March 15 and June 15, he will owe \$700, which must be paid in equal installments on September 15 and December 15, 1943.

If he finds that his income during the last quarter of the year, from September 15, is considerably in excess of his estimate on September 15, he may file an amended-estimated return on December 15, and pay enough additional tax on that date to cover the increase in his estimated net income over the amount computed on September 15. It may be advisable for him to file this amended-estimated return in order to avoid the 6 per cent penalty which would be assessed if the tax computed on his estimated

return is more than 20 per cent less than the amount of his 1943 tax as shown when he files his complete return on March 15, 1944.

WHAT HE WILL OWE

On or before March 15, 1944, he must file a complete, accurate return for the year 1943. Unless Congress amends the income tax law in the meantime, his 1943 return will be figured on the same basis as to deductions and rates as for 1942.

For the purpose of this example, it will be assumed that his tax was \$1,250. He will not be subject to the 6 per cent penalty because the actual tax is not more than 20 per cent of the estimated tax. Under the provisions of the "Current Tax Payment Law", the taxpayer is entitled to abatement of 75 per cent of the tax on his 1942 or 1943 income tax, whichever is the lesser, but he still owes 25 per cent. In this particular case, the physician owes 25 per cent of his 1942 income tax, or \$250. On March 15, 1944, he will be required to pay one-half of that unforgiven portion of his 1942 tax or \$125, plus \$50—the difference between \$1,250, the amount of his 1943 tax as computed on his March 15 1944, return and the \$1,200 which he paid during 1943. The balance of \$125 due on the unforgiven portion of his 1942 tax will be due on March 15, 1945.

WHAT HAPPENS IN 1944

He will also be required on or before March 15, 1944, to file an estimated return for the year 1944, and pay at that time at least one-fourth of the estimated tax liability for the year, the balance being due in quarterly installments on June 15, September 15 and December 15, 1944. If the estimated return filed on March 15 is later determined to be in error, he may file an amended return on any of the dates specified for quarterly payment. On or before March 15, 1945, he will have to file a complete return for the year 1944, pay the difference between what he actually owes and what he has paid in 1944 based on his estimated returns, if he under-estimated his return. If he over-estimated it, he will receive either a refund or a credit on future taxes. As previously stated, he will also owe on March 15, 1945, the amount of \$125, one-half of the unforgiven 25 per cent of his 1942 taxes.

PHYSICIANS ON A SALARY

Under the "Current Payment Tax Law of 1943", income tax procedure of the physician who is in a salaried position will be something like this: Suppose that his income tax for 1942 was \$1,000; that he paid \$250 on March 15, 1943, and \$250 on June 15, 1943; that the "Victory Tax" deducted from his salary for the first six months of 1943 totaled \$150, and that the withholding tax for the balance of the year was \$50 per month, the total tax, paid and withheld, amounting to \$950.

Assuming that he had a salary increase during 1943, when he files his estimated tax return for 1943 on September 15, 1943, his estimated tax is \$1,100. That amount less \$950, the total of what he has paid or has been deducted from his salary, equals \$150. He will have to pay one-half of that amount or \$75, on September 15, 1943, and the balance on December 15, 1943.

On or before March 15, 1944, he will be required to file a complete return for the year 1943. At that time he will be required to pay the difference between what he has previously paid based on his estimated return and the amount he actually owes according to his completed return. If the difference is in his favor, it will be refunded or credited against future taxes. At the same time, March 15, 1944, he will owe \$125, one-half of the unforgiven 25 per cent of his 1942 tax, the balance being due on March 15, 1945.

MUST KEEP ACCURATE RECORDS

It should be quite obvious from the foregoing that all taxpayers will have to file more reports than they have in the past; that it will be to their advantage to keep accurate records in order to file accurate returns, and to seek advice from tax experts.

A physician serving with the armed forces within the United States is supposed to file with the Collector of Internal Revenue for his district on or before September 15 an estimate of his income for 1943. If he is in the higher-pay brackets and his tax liability is above his exemptions, after he has paid quarterly installments on 1943 income on March 15 and June 15, 1943, he is supposed to pay by September 15 one-half of the tax still due for 1943. Members of the armed forces serving overseas can wait until they have returned home before filing returns and paying their income tax.

Obstetrical Board Examinations

Applications for the 1944 examinations of the American Board of Obstetrics and Gynecology are being received at the office of the secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania. Booklets of information regarding Board requirements and examinations, together with application forms will be sent upon request. All applications for the year 1944 must be in the Secretary's Office not later than November 15, 1943, ninety days in advance of the Part I examination date. Candidates are required to take both Part I and Part II examinations. The Office of the Surgeon General (U.S. Army) has issued instructions that men in service, eligible for board examinations be encouraged to apply and that they request orders to "detached duty" for the purpose of taking the examinations whenever possible.

U.S. Committee Named To Study Food Needs of Invalids

A newly formed committee of physicians and specialists will assist in formulating broad policies for handling the special dietary needs of invalids and persons with specific diseases under the rationing program, the War Food Administration has announced.

The committee was named by the National Research Council, at the request of the Food Distribution Administration and Office of Price Administration. It is studying procedure for obtaining certification by physicians of invalids and persons with specific diseases requiring extra quantities of rationed foods; qualifications of those who may certify as to these needs for extra foods; procedure of certification which will place a minimum burden on physicians; and diseases justifying extra allowance of rationed foods with specific determination of what foods and what quantities are necessary.

The committee, which is the subcommittee on Medical Food Requirements of the Committee on Drugs and Medical Supplies of the National Research Council, also will advise OPA with respect to appeals from decisions of local rationing boards.

Members of the committee are: Dr. William D. Stroud, Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania, Chairman; Dr. Clark W. Finnerud, Assistant Professor of Dermatology, University of Illinois; Dr. Gilbert J. Levy, Associate Professor of Pediatrics, University of Tennessee; Dr. Alton Ochsner, Professor of Surgery, Tulane University School of Medicine; Dr. Cecil Striker, Cincinnati, Secretary, American Diabetic Society; Dr. C. W. Munger, Director, St. Lukes Hospital (New York City); Dr. Philip S. Owen, Former Research Assistant, Harvard Medical School, who will serve as technical aide; and Dr. Fred L. Adair, recently Professor of Obstetrics, University of Chicago, who will serve as a liaison member representing the Medical Needs Division of the Food Distribution Administration. Dr. W. W. Palmer, Professor of Medicine, Columbia University, and chairman of the National Research Council's committee on Drugs and Medical Supplies, is ex officio a member of the Sub-committee on Medical Food Requirements.

Another Imposter at Large

The Harrower Laboratory, Inc., Glendale, Calif., has announced that a man representing himself as a "Dr. Lee" or a "Mr. Scott" and purporting to be a salesman for that company is not an employe of the company and is obviously an imposter.

WAR NOTES

Comdr. Jerome Hartman, formerly head of the orthopedic service at Miami Valley Hospital, Dayton, is back from the Southwest Pacific after 10-months service with a naval unit of which seven other Dayton physicians are members. He has been taking treatment at the Great Lakes Naval Station and expects to be assigned for further duty in the near future. He was promoted to Commander last July after being decorated by the British for bravery when an aircraft carrier, on which he was stationed as an observer, was bombed.

* * *

Lt. Otto Salsbery, Jr., formerly of Mariemont, Cincinnati, has been decorated with the Purple Heart for bravery in action in North Africa. He received a facial wound during an aerial bombardment by the Germans but has recovered and is again on active duty, according to word received by Cincinnati relatives.

* * *

Major A. R. Callander, Delaware physician, who saw a year's active service in the Southwest Pacific, including Guadalcanal, visited his family recently. He has been assigned to the Oakland Area Station Hospital, Oakland, Calif. Major Callander was commander of a medical detachment which landed at Guadalcanal during some of the heaviest fighting.

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Mrs. C. M. Dougherty of New Philadelphia has received word that her husband, Major Dougherty has arrived safely in India.

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Capt. Harry J. Keys, formerly of Columbus, has been home on 15-day leave from Panama.

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Columbus friends were pleased to learn of the promotion of Dr. Drew L. Davies to the rank of Commander, Navy Medical Corps. Commander Davies is senior medical officer of the Cincinnati Naval Recruiting District. He is a former Columbus surgeon and was at the time of his call to active duty in 1940 a member of the Workmen's Compensation Committee of the Ohio State Medical Association.

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Lt. Comdr., Joseph D. Hayden, former Akron physician, is medical officer for the Navy V-12 unit stationed at Oberlin College.

Mrs. Dale Roth, Newark, has been informed that her husband, Captain Roth, has recovered from an attack of dengue while on duty in North Africa and is again on active duty with his medical detachment.

* * *

A few news items about some of the Toledo physicians in active service. . . . Maj. K. C. McCarthy has been made chief of the Section on Anesthesia and Operating Room at Nicholas General Hospital, Louisville. . . . Capt. Russel Shively, overseas for 29 months, writes he is learning much about tropical medicine and diseases and surgical conditions rarely seen in Toledo. He apparently is on the surgical staff of a hospital in the British West Indies. . . . Sam Friedmar is at the Station Hospital, Camp Polk, La., and is now wearing two silver bars. . . . Lt. David L. Friedman is anesthetist for a surgical team at Fort Sam Houston, Texas. . . . Lt. Leo Weiss has been taking a course in bronchoscopy at Temple University under Chevalier Jackson and expects to be sent back to Indiantown Gap soon. . . . Now in the desert in Southern California, Lt. F. X. Stukenborn recently completed a course in anesthesia at the Mayo Clinic. . . . Maj. A. J. Kuehn writes that he and Capt. Phil Katz "are planning on doing San Antonio tonight." Both are stationed at Fort Sam Houston, Texas.

* * *

Lt. Harry W. Topolosky, Columbus, has been awarded the Purple Heart, having been wounded while in action with the Army Medical Corps in the Aleutian Islands. He is now at Barnes General Hospital, Vancouver, Washington. Lt. Topolosky's unit and tent hospital detachment was attacked by Japs on Attu and were saved from being wiped out by a quick counterattack on the part of United States troops, although several were killed and a number wounded.

* * *

Command of the Army Medical Corps is now in the hands of Major General Norman T. Kirk, newly appointed Surgeon General, succeeding Major General James C. Magee, retired. General Kirk went from Percy Jones General Hospital, Battle Creek, Mich., to his present post. In 1919 he was in the surgical service at Walter Reed General Hospital and later had duty at Johns Hopkins University Hospital, Massachusetts Gen-

eral Hospital and the Station Hospital, Fort Sam Houston, Texas, where he was chief of surgery. He served subsequently in the Philippines and again at Walter Reed Hospital.

According to Frank Carey, Associated Press feature writer, General Kirk is known among his friends as "T.N.T. Tommy". "The moniker resulted partly from his prowess on the polo field and partly from the fact that he'd almost explode with zeal when he had a chance to go shooting quail or fishing for tuna, but mostly from the fact that the surgeon could pack dynamite into his words once he got warmed up to an argument", according to Carey.

In an interview with Carey, General Kirk made these observations:

"I'm just a country boy from Rising Sun, Md., and I like to speak my mind. I think the public should know a lot of things about the job the medical department is faced with, even though our health record to date has been better than in any war in history.

"We're still having difficulty in procuring the number of medical officers and nurses we need to take care of those boys out there fighting, and I lose patience when I hear complaints that there are 'too many doctors in the Army, doing nothing,' and that civilians are worrying about dying because many doctors already have gone into the service.

"Certainly there are times when doctors and nurses are forced into inactivity. That's true right now in Africa where the fighting is over, but it's just the intermission between the acts. They must be prepared for the next offensive wherever it may be, and others must be on the job back in this country, guarding the health of the men who may be going over, and training for active duty themselves in the combat zones".

"Doctors in wartime", said the General who for years has been recognized as one of the outstanding surgeons of the country, "are like firemen in a city.

"The firemen sometimes have to sit around the firehouse for hours on end, playing cards, but they have to be ready when the alarm goes off—and so it is with the army doctors. They're on call 24 hours a day whether there's active fighting going on or not.

"But we need more and more of them to maintain the good records on health and restoration of the wounded that we have had—and to bring our boys home again."

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Among those reported wounded in North Africa is Lt. Carl Stein, former Loudonville physician and a graduate of the College of Medicine, Ohio State University.

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Capt. Barclay M. Brandmiller, formerly from Youngstown, is now living at Carmel, 15 miles from Fort Ord, Calif., overlooking the Pacific, where his outfit is stationed. Says it has Florida beaten (California papers please copy) and is the best of the four camps where he has been stationed since entering the service.

In an article calling attention to the fact that many lives have been saved by the technique which has been developed for transporting wounded by plane to base hospitals, the *Stars and Stripes*, U. S. Army daily in the European zone, paid the following tribute to Lt. Col. Herbert B. Wright, former Cleveland physician: "Col. Wright, who is one of the few American medical officers who may wear pilots' wings, is given much of the credit for working out the above plan".

* * *

Mrs. Elizabeth Armstrong, Cincinnati, has been informed by the International Red Cross that her son, Lt. C. B. Armstrong, graduate of the College of Medicine, University of Cincinnati and former resident at Ft. Hamilton Hospital, Hamilton, is a prisoner of the Japs. He was at Corregidor when it fell to the Japs.

* * *

News about some Columbus military medicos. . . Capt. Frank H. Jones is now located at Camp Cook, Calif. . . Recently transferred, Capt. L. W. Rohr is at the Army Air Base, Richmond, Va. . . Station Hospital, Camp Crowder, Mo., is the new assignment of Lt. William G. Meyer. . . After two years at the Rock Island Arsenal, Maj. M. David Burnstine has been transferred to Camp Custer, Mich. . . Hardy A. Kemp, on leave as dean of the Ohio State University College of Medicine, is now a lieutenant colonel and is in the Burma-India-China area. . . "Plenty of work most of the time", writes Capt. E. M. Kilpatrick from Bushnell General Hospital, Brigham City, Utah. . . Lt. Robert A. Kidd is at the Naval Receiving Station, Sampson, Seneca Lake, N. Y. . . After graduating in tropical medicine at Walter Reed Hospital, Capt. John B. McLaughlin was home recently on a 10-day leave. . . Lt. David R. Lewis has been transferred to Dale Mabry Field, Tallahassee, Fla. . . Writing from aboard one of the big battleships where he is one of three medical officers, Lt. Robert G. Smith says that most of the work is just like general practice and 95 per cent of it is dermatology . . . that the biggest favor folks back home can do is to write to the boys in the service and send newspapers and magazines.

* * *

The War Department has ordered that as a general policy and in order to place medical officers available where they are most needed, regimental and separate units, such as battalions, which are now authorized to have two medical officers by the tables of organization will be provided only with one medical officer while in continental United States. Before such units go overseas, the number of medical officers will be increased. All medical and dental officers desig-

nated in the tables of organization as captains or as first lieutenants will be shown as authorized in either rank, no specification being made.

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Board of Trustees of the Cleveland Academy of Medicine has joined the Western Reserve University and civic groups in urging the War Department to name the new government hospital being erected at Parma in honor of the late Dr. George W. Crile.

* * *

Members of the recent graduating class of Aviation Medical Examiners at Randolph Field, Texas, were the following Ohioans: Lt. William B. Ayres, Dayton; Lt. George W. Beers, Canton; Lt. Robt. J. Deger, Dayton; Lt. Eugene A. Ferreri, University Heights, Cleveland; Lt. Marvin S. Freeman, Cleveland; Lt. James A. Gavin, East Cleveland; Lt. Ralph S. Grace, Hamilton; Lt. Charles C. Henrie, Celina; Lt. William J. Herman, Shaker Heights; Lt. Luther W. High, Millersburg; Capt. Saul W. Kessler, Cleveland; Lt. Edgar A. Knowlton, Cleveland; Lt. David R. Lewis, Grove City; Lt. Bernard S. Malasky, Garfield Heights; Lt. John H. Mowry, Conneaut; Lt. Dan A. Nye, Columbus; Lt. Frank J. O'Dea, Cleveland; Lt. Harold G. Overly, Loveland; Lt. E. D. Peelle, Wilmington; Capt. Alexander Pollock, Columbus; Lt. Sanford Press, Steubenville; Lt. Edward J. Purchla, Toledo; Lt. Henry Roenigk, Lakewood; Capt. Edward A. Sawan, Akron; Lt. Joseph N. Schaeffer, Dayton; Capt. George I. Scheetz, Rockford; Lt. Edward E. Schumacher, Cleveland; Lt. Richard H. Sloan, Marietta; Lt. John W. Smith, Grand Rapids; Lt. Homer D. Underwood, Van Wert, and Lt. Calvin F. Warner, Cincinnati.

* * *

More than three tons of quinine, about 9,000,000 doses of 5 grains each, have been presented to the armed forces by the American Pharmaceutical Association following a collection program carried on by thousands of druggists throughout the country.

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Dr. Frank H. Mayfield, formerly of Cincinnati, now stationed at Battle Creek, Mich., has been promoted to the rank of major, Army Medical Corps.

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Dr. Edward A. Strecker of Philadelphia, president of the American Psychiatric Association, has been named special consultant to the Secretary of War for the Air Forces of the United States Army. A month ago, he was named consultant in psychiatry to the Surgeon General of the U.S. Navy. Dr. Strecker is professor and head of the department of psychiatry at the Uni-

versity of Pennsylvania's Graduate School in Philadelphia, and the medical school of the same university.

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Maj. Louis Deitchman, formerly of Youngstown is with a medical detachment at Grand Rapids, Mich., where six or seven thousand air force cadets are being trained in meteorology.

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Capt. Winchell M. Craig, U.S.N.R., former Ohioan and erstwhile member of the Mayo Clinic staff, now chief of surgical service, Bethesda Naval Hospital, is one of three physicians on the West Coast observing battle casualties in navy hospitals and appraising treatment methods. The other two are Dr. Walter E. Dandy, professor of neurologic surgery, Johns Hopkins Hospital, and Dr. Meyer Wiener, professor of clinical ophthalmology, Washington University School of Medicine, both of whom are members of the Board of Honorary Consultants to the Surgeon General of the Navy.

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Parents of Capt. Wilbert W. Buckhold, Cleveland, have been notified that their son is a prisoner of the Japs. He was stationed at Manila at the outbreak of the war.

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The Secretary of War has announced that from Nov. 8, 1942, to May 15, 1943, the American casualties in the North African military operations, including initial landings, were 2,184 killed; 9,437 wounded, and 6,937 missing, including prisoners of war.

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Lt. A. R. Cukerbaum was ready to "shove off" at San Francisco, the latest word received by his colleagues at Youngstown indicated.

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From Muroc, Calif., Capt. L. K. Reed writes that the Fourth Air Force can use plenty of medics and that they are waiting with open arms for the "July crop". He's from Youngstown.

* * *

Good old Ernie Pyle, who is doing one swell job of military reporting in North Africa and nearby areas, has come to bat again with some more interesting comments about the medical and health situation among the troopers. In his column published in a recent issue of *The Columbus Citizen*, Ernie said:

"Here's a good lesson in not believing everything you hear. Up in North Africa last winter there was a report from people who should know that more than 50 per cent of our troops in tropical Africa were down with malaria. We just accepted it as true.

"But when I went to Central Africa I found

that malaria among our soldiers was less than 1 per cent! and dysentery is even lower.

"The false rumor was based on one single detachment of troops. They were the first to hit Africa last spring, they were in an infested jungle, they were without mosquito nets for the first four days, and practically the whole camp came down with malaria. The percentage was actually greater than the rumored 50, in that one case.

"But that was soon over, and today that place is as healthy as any other. And nowhere else have we ever had a serious run of the fever.

"Actually, the general health of our troops in the tropics is better than in the average camp at home, Army doctors say. It's because we exercise such extraordinarily careful protection over our men's health. You can't travel around Central Africa without feeling a tremendous pride in the Army's medical and sanitary corps.

"Let's go to another part of Africa—a place so deep that it takes days of flying to get there. Right from our camp you can hear the throb of tom-toms all over the country at night. The soldiers only have to take a boat ride to shoot crocodiles. The place is practically the capital of malaria and dysentery.

"Our campsite—picked by local officials—was in the worst swamp around. Yet the Americans thrive there. The answer lies in spraying and burning and oiling the swamps, using mosquito netting, watching all dirt and filth, and taking 10 grains of quinine a day.

"They had an astonishing example there of American sanitation. The troops were living out in this swamplike camp. But the Army nurses were living temporarily in the nearby city. They were living in a hotel—a big, modern, lovely place. And each single one of the nurses came down with dysentery—one of them died—while only three of the soldiers out in the swamp got dysentery. Those three cases were traced to eating occasional meals in town, at the same place the nurses got theirs.

"An Army doctor told me the other day that probably every one of our soldiers in that area does have malaria germs in him, but the daily quinine keeps them from becoming active.

"Throughout the tropics all Americans sleep under mosquito netting, and wear boots of an evening, and most of them take quinine. In some places they take one tablet a day (five grains), and in more dangerous places two a day. Nobody uses face nets, so far as I know.

"A few of our men have cracked up under the tropical strain and had to be sent home. But they are very few. The average man gets along all right in the tropics if he is careful, keeps regular hours, and doesn't drink too much".

After being in the woods and swamps where the going is tough and a 35 mile march nothing unusual, a fellow really gets hardened up, writes Capt. M. W. Neidus, formerly of Youngstown, from Mississippi where he has been "medical umpire" with an infantry division on maneuvers.

* * *

Now in North Africa are three Youngstown doctors: Maj. W. D. McElroy, Capt. Ray Hall, and Capt Paul M. Kaufman.

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Whenever possible officers whose work is confined mainly to offices are being permitted at least one-half day a week other than holidays and Sundays for physical exercises in the interest of good health and mental fitness, the War Department has ordered.

* * *

"Have just finished the first half of my course at the Randolph Field School of Aviation Medicine . . . it's a splendid course and compares with any postgraduate work I've had to date . . . some grind and glad to have the first six weeks behind me . . . next six weeks will be spent in applying what we have learned at the aviation cadet center", writes Lt. Frank W. Anzinger, formerly from Springfield, from San Antonio.

* * *

It's now Capt. O. E. Cress, former Van Wert physician. He's located at Camp Atterbury, Indiana, and says he's doing abdominal surgery.

* * *

Writing from Marine Corps Air Base, Kearney Mesa, San Diego, Lt. Comdr. Herbert Warm, formerly of Hamilton, states he has been doing flight surgery as well as general medical work and has been serving on an interviewing board for men returning from overseas. He recently was promoted to his present rank.

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"From reports at hand it appears that so far American military forces in North Africa, have escaped typhus, which is still a menace to the civilian population," *The Journal of the American Medical Association* for June 5 said in an editorial on "The Menace of Typhus in Europe." Yves Biraud of the Epidemiological Intelligence Service Health Section of the League of Nations points out that typhus is on the increase in the countries of eastern Europe in which the disease usually is endemic, in Spain and in North Africa, and that it has appeared in sporadic forms in regions of central and western Europe hitherto free from the disease. In eastern Europe typhus is not as widespread as at the end of the first world war. In the West Biraud does not regard the danger of typhus serious 'so long as the population continues on the whole to be free from lice,' but increasing economic

disorder and destitution may result in spread of the disease. The special means to prevent the invasion and extension of typhus are delousing and vaccination. In Tunis, where 200,488 vaccinations were made with the mouse virus, not a single case of vaccinal typhus was observed. Biraud concludes that modern antityphus vaccination coupled with delousing can protect Europe against the present menace of epidemic typhus.

* * *

Major L. L. Lawrence, formerly of Canton, has returned after a year's service in the Hawaiian Islands and is now stationed at Station Hospital, Camp Wolters, Texas. Referring to his foreign service, he comments: "It is a very interesting experience although the separation from families is probably the worst feature. However, the war must be fought and won other than in the United States."

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After 27 months in foreign service, mostly in Puerto Rico, Lt. Col. H. V. Dutrow, formerly of Dayton, is now located at 2809 Collins Avenue, Miami Beach, Fla.

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Information has been received of the promotion of Dr. Robert J. Tapke, formerly of Cincinnati, to the rank of major, Army Medical Corps. He is at the Station Hospital, Camp Wheeler, Macon, Ga.

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Captain Joseph D. VandeVelde, formerly of Cleveland, who was stationed in the Philippines, is a prisoner of the Japs, according to word received by the parents of Dr. VandeVelde, an Ohio State University graduate who was assigned overseas in August, 1941.

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One of the most rapidly growing officer corps in the Army at the present time is the Medical Administrative Corps, a non-medical group which is combining its knowledge of supply, evacuation, personnel, and training methods to work with the professional men in the Army Medical Corps. Non-commissioned officers from all branches of the service train at the Medical Administrative Officer Candidate School at Camp Barkeley, Texas, having been carefully chosen by selecting boards. A large number of the candidates come from the Medical Department's enlisted men, and often have highly specialized civilian training in such fields as pharmacy, drug sales, embalming and mortuary, chemistry, hospital administration, and pre-medical training. This is the only Medical Administrative School since Carlisle Barracks, Pa., was taken over completely by the medical field service school. Courses in logistics, tactics, sanitation, administration, chemical warfare and allied subjects

enable the new second lieutenants to qualify for practically any job in the Medical Department which does not require professional skill.

The school is graduating a class of from 200-400 officers every two weeks. There have been over 6,000 graduates of the school in the year of its operation.

All Inductees With Positive Blood Serology Sent to Army Center

All inductees with positive blood serology are being forwarded to Reception Center, Fort Benjamin Harrison, Indiana, for further clinical study for a period not to exceed three days following examination at induction station, if found otherwise qualified, State Selective Service Director C. W. Goble has announced. This will be for the purpose of spinal fluid examination to eliminate any who may have cerebrospinal syphilis. If a positive spinal fluid is found they will be rejected and then classified 4-F.

The registrant who is accepted for induction after examination at the reception center may elect to take the allowable furlough, (previous to July 15, fourteen days; after July 15, twenty-one days), following his examination at Fort Benjamin Harrison, or he may elect to remain to complete treatment and later ask for furlough not to exceed twenty-one days.

Col. Goble also called to the attention of local boards and examining physicians the possibility that blood taken for blood serology following vaccination for smallpox may result in a false positive for a period of two to three months following the vaccination. In areas where vaccination has been common because of recent smallpox epidemic, he stated inquiry should be made of all registrants as to whether they have had a recent smallpox vaccination, and, if so, notation of this, with date, should be made and reported.

Museum Offers Internship

From August 9 to September 4, twenty-seven students in health education from the University of North Carolina will work as interns at the Cleveland Museum to receive a course of instruction, do laboratory work and gain field experience in the methods of health education especially in health exhibits. Among those students are the 17 individuals who were awarded fellowships by the United States Public Health Service, from a grant made available by the W. K. Kellogg Foundation. The course is part of a three months' supervised field experience required in addition to nine months' academic training in order to obtain a master of science in public health. The course will be conducted by Dr. Bruno Gebhard, director of the Museum.

Almost Twice as Many Births As Deaths In Ohio During 1942, Recent Report on Vital Statistics Reveals

THE REPORT of vital statistics of Ohio for 1942 recently issued by Dr. R. H. Markwith, state director of health, discloses that there were almost twice as many births as there were deaths in the state last year.

There were 143,610 births (excluding stillbirths) and 77,490 deaths. In 1941 there were 122,456 births and 77,525 deaths. The birth rate increased from 17.7 per 1,000 population in 1941 to 20.6 in 1942. The rate was 16.6 in 1940 when 114,895 babies were born and 14.7 in 1939, with 109,271 births.

Of the 143,610 births in Ohio in 1942, 73,534 were males, 70,076 females; 136,570, white; 7,028, negro, and 12, other color. Births occurring in hospitals numbered 109,680 or 76.37 per cent, compared with 69.82 per cent in 1941; 62.56 per cent in 1940 and 52.6 per cent in 1939.

PUERPERAL DEATHS DECREASE

Puerperal deaths in 1942 numbered 296, a rate of 20.54 per 10,000 live births, compared with 314 and a rate of 25.64 in 1941. There were 3,587 stillbirths in 1942, a rate of 24.9 per 1,000 live births. Comparable figures in 1941 were 3,312 stillbirths, with a rate of 24.9.

Deaths under one year of age in 1942 numbered 5,336, an infant mortality rate of 37 per 1,000 births, compared with 5,118 infant deaths and a rate of 42 in 1941. All of these rates are the lowest in history. In 1922 there were 786 puerperal deaths in Ohio, a rate of 64.22; 4,985 stillbirths, with a rate of 40.5, and 8,792 infant deaths, with an infant mortality of 72.

The eight leading causes of death in Ohio in 1942, with the number of deaths from each cause follow: heart, 22,673; cancer, 9,534; cerebral hemorrhage, 7,091; nephritis, 5,412; pneumonia, 3,250; tuberculosis, 2,856; diabetes, 2,166; falls, 1,785. The leading causes of death in 1941 were in the same order as in 1942, except that auto accidents was one of the leading causes in that year, being in seventh place, with diabetes in eighth.

HEART FATALITIES INCREASE

Deaths from heart disease continue to increase, with a rate of 325.36 per 100,000 population in 1942 compared with 314.51 in 1941. The rate in 1922 was 160.29, with 9,656 deaths. The death rate from cancer was slightly less in 1942, being 136.81 in 1942 and 138.62 in 1941. It was 92.16 in 1922, with 5,552 deaths. The pneumonia death rate increased from 44.03 in 1941 to 46.64 in 1942. The rate was 100.21 in 1922, there being 6,037 deaths from pneumonia that year. The

death rate from tuberculosis was 40.98 in 1942, compared with 42.38 in 1941. The rate in 1922 was 85.16, when there were 5,130 tuberculosis deaths.

REPORT ON COMMUNICABLE DISEASES

Deaths from communicable diseases during 1942 were as follows: Influenza, 643; diarrhea and enteritis, 212; whooping cough, 129; measles, 30; lethargica encephalitis, 24; acute poliomyelitis, 23 diphtheria, 33; typhoid fever, 19; scarlet fever, 34; epidemic meningitis, 12. In 1941 deaths from these diseases were as follows: influenza, 993; diarrhea and enteritis, 185; whooping cough, 181; measles, 116, lethargica encephalitis, 51; acute poliomyelitis, 50; diphtheria, 25; typhoid fever, 29; scarlet fever, 27; epidemic meningitis, 15.

A striking decrease is noted in the number of deaths from diphtheria. In 1922 there were 830 deaths from that cause, and 222 in 1932, compared with 33 last year. Other decreases in the last ten years include: diarrhea and enteritis, 1932—631, 1942—212; whooping cough, 1932—341, 1942—129; measles, 1932—163, 1942—30; typhoid fever, 1932—137, 1942—19; scarlet fever, 1932—221, 1942—34.

The complete report on vital statistics is unusually comprehensive, and covers almost 100 pages. Much of the information is analyzed by counties and health districts. The State Department of Health has a limited number of copies on hand, which will be distributed to physicians on request as long as the supply lasts.

Congress of Physical Therapy

Will hold its twenty-second annual scientific and clinical session September 8, 9, 10 and 11, 1943, inclusive, at the Palmer House, Chicago. The annual instruction course will be held from 8:00 to 10:30 A.M. and from 1:00 to 2:00 P.M. during the days of September 8, 9 and 10, and will include a round table discussion group from 9:00 to 10:30 A.M., Thursday, September 9. The scientific and clinical sessions will be given on the remaining portions of these days and evenings. A feature will be an hour demonstration showing technic from 5:00 to 6:00 P.M. during the days of September 8, 9 and 10. All of these sessions will be open to the members of the regular medical profession and their qualified aides. For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

Six Ohio Hospitals Invited To Form Special Units For Duty in Event of Enemy Action or Military Disaster

SIX OHIO hospitals are among the 191 hospitals and medical schools which have been invited by the Surgeon General of the United States Public Health Service to organize affiliated hospital units of the Emergency Medical Service, Office of Civilian Defense. They are: Mt. Carmel and White Cross, Columbus; St. Vincent's, Toledo; Christ and Good Samaritan, Cincinnati; and Miami Valley, Dayton.

The organization of such units has been approved by the Board of Trustees of the American Medical Association and the Directing Board, Procurement and Assignment Service. Only male physicians ineligible for military duty because of age, physical disability or essential status in the community and women physicians will be signed up for such units.

TO BE USED IN LOCAL AREA

These emergency units, according to an official OCD bulletin of June 8, 1943, will be activated only in event of a grave military disaster affecting the civilian population or military personnel in the area in which the parent hospital is located. Activation of a unit will take place only upon the recommendation of the State Chief of Emergency Medical Service and the Office of Civilian Defense Medical Officer, subject to certain limitations imposed by the Surgeon General of the U. S. Public Health Service and the Chief Medical Office of the OCS and by agreements with the invited hospitals.

The rules governing activation of affiliated units are as follows:

1. Members of the staffs of units are commissioned in the inactive reserve of the U. S. Public Health Service, generally with the rank of passed assistant surgeon, surgeon or senior surgeon (equivalent to army ranks of captain, major and lieutenant colonel, respectively). They will remain on inactive status for the duration of the war unless urgent need for their services should arise in their region because of an air raid or other grave wartime disaster. When activated under such circumstances, these officers will receive the pay and allowances of officers of equivalent grades in the armed forces.

TWO SPECIFIC PURPOSES

2. The two specific purposes for which a unit may be activated are:

- (a) For duty in an Emergency Base Hospital to which civilian casualties and other hospitalized patients must be transferred because a community is under enemy attack or one or more of its hospitals must be evacuated.

- (b) For temporary duty to assist the armed forces at the time of an extraordinary military emergency which may temporarily overtax local military hospital facilities. Such temporary assistance will be provided in or near the locality in which the affiliated unit has been organized. The period of emergency assistance is expected to be of short duration and will last only until the Surgeon General of the Army can send in additional medical officers or until he can distribute the excessive load of sick and wounded to military hospitals in other parts of the country. Affiliated units are organized primarily for civilian protection and are not to be used to staff military hospitals as they expand to meet increasing medical requirements of the Army.

3. Since affiliated units are organized by the Medical Division of the Office of Civilian Defense as part of the Emergency Medical Service of their states, they will be expected to provide aid only in their own or neighboring states.

MAY RESIGN APPOINTMENTS

4. A unit organized from the staff of a teaching hospital of a medical school will not be called unless the hospital staff must be evacuated or unless there is no unit from a non-teaching hospital to meet the emergency need.

5. The period of obligation for service will cease at the termination of the present national emergency; the Surgeon General will accept resignations of members of the units six months after cessation of hostilities.

6. A commission in the inactive reserve of the U. S. Public Health Service does not prevent a member of an affiliated unit from entering the armed forces; resignations will be accepted for this purpose.

PERSONNEL OF UNITS

7. Members of affiliated units may wear the authorized lapel buttons which indicate that they have enlisted for emergency service. They are not to wear the uniform until called to active service and need not purchase a uniform unless the possibility of active service is imminent. Uniforms will not be required for brief periods of active service.

It is anticipated that each unit will be composed of 15 persons as follows: Chief of medical services, assistant chief of medical services, two general internists, chief of surgical services, assistant chief of surgical services, four general surgeons, orthopedic surgeon, assistant orthopedic surgeon, dental surgeon, pathologist and radiologist.

In Memoriam

Benjamin Rush McClellan, M.D., Xenia; Miami Medical College, Cincinnati, 1884; aged 83; member of the Ohio State Medical Association and Fellow of the American Medical Association and the American College of Surgeons; died June 5, at Williamsburg, Va., where he had gone to attend the graduation of a granddaughter at Williams and Mary College.

A native of Xenia, Dr. McClellan had practiced there for nearly 60 years. He was the son of Dr. H. R. McClellan, who died in 1915 at the age of 89 after being a practicing physician 62 years. For years one of the most active workers in medical organization in Ohio, Dr. McClellan was a past-president of the Greene County Medical Society; vice-president of the Ohio State Medical Association in 1903; president of the Association, 1906-1907; delegate to the American Medical Association, 1913-1942; member from Ohio on the National Legislative Council of the A.M.A., 1907-1914; chairman of the Committee on Public Policy and Legislation of the State Association, 1909-1914; member of the Committee on Medical Education and Hospitals of the State Association, 1925-1935, chairman, 1926-1935; and member of the State Medical Board, 1915-1922.

Dr. McClellan established the McClellan Hospital in Xenia in 1898 and was dean of the medical and surgical staff of the Ohio Soldiers' and Sailors' Orphans Home at Xenia. He was a captain in the Medical Corps of the U.S. Army during World War I, serving as chief of the surgical staff at Debarkation Hospital No. 2, New York City. Dr. McClellan was a past-commander of the Xenia post of the American Legion, and had been chaplain of the post since its establishment in 1920. Active in community affairs, as well as medical circles, he was a past-president of the Rotary Club and president of the Greene County Historical Society. On May 31 he was grand marshal of the Memorial Day Parade. Surviving are three daughters and two sons, one of whom is Dr. Reyburn R. McClellan, associated with him in practice at Xenia.

William Henry Humiston, M.D., Willoughby; Long Island College of Medicine, Brooklyn, 1879; aged 88; member of the Ohio State Medical Association and the American Medical Association; died June 15. Dr. Humiston was the oldest living past-president of the Ohio State Medical Association, of which he was President in 1897. Professor emeritus of medicine at Western Reserve University School of Medicine, Dr. Humiston retired 18 years ago, after practicing in Cleveland for 45 years. He had been a member of the staffs of City Hospital and Charity Hospital, and a member of the city board of health. Dr. Humiston was a past-president of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, and the Cleveland Academy of Medicine. He was also one of the early promoters of the Cleveland Medical Library Association and had been a director of the Cleveland Chamber of Commerce. Two daughters and a son survive.

Henry Burner Anderson, M.D., Newark; Ohio Medical University, Columbus, 1902; aged 65; member of the Ohio State Medical Association

and Fellow of the American Medical Association; died May 24. Dr. Anderson practiced in Newark for 40 years. He was a past-president of the Association of B. & O. Surgeons, and a member of the Masonic Lodge. A son survives.

Robert Cathcart, Jr., M.D., Cleveland; University of Edinburgh, Faculty of Medicine, Scotland, 1938; aged 32; former member of the Ohio State Medical Association and the American Medical Association; died May 20. Dr. Cathcart had practiced in the Fairview district since 1940. He was a member of the Fraternity of Phi Gamma Delta. His widow, his parents and a brother survive.

Joseph Robert Fitzgerald, M.D., Toledo; Toledo Medical College, 1904; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died May 25. Dr. Fitzgerald practiced in Toledo for 38 years. He was a member of the Holy Name Society. Surviving are his widow and a daughter.

Fred Garfield King, M.D., Canton; University of Wooster, Medical Department, Cleveland, 1908; aged 60; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 28. A past-president of the Stark County Medical Society, Dr. King practiced in Canton for 35 years. He was also a past-president of the staff of Aultman Hospital. Dr. King was a life member of the Presbyterian Church. His widow, a daughter and a sister survive.

John Wilson Maxwell, M.D., Chillicothe; New York University College of Medicine, New York, 1899; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died May 16. Dr. Maxwell practiced in Chillicothe from 1900 to 1911, when he located in Denver, Colo. He returned to Chillicothe in 1916, and was in practice there until

ill health caused his retirement last August. Dr. Maxwell was president of the Ross County Medical Society in 1919. He was a member of the Episcopal Church. Surviving are his widow and a sister.

George McGuffin, M.D., Pettisville; University of Western Ontario Medical School, London, Ontario, 1900; aged 71; member of the Ohio State Medical Association; died May 10. Dr. McGuffin practiced in Fulton County for more than 40 years. He had been secretary of the Fulton County Medical Society since 1932, a post which he previously held in 1922-1924. He was also president of the society in 1927-1928. Also active in community affairs, he has been on the local Board of Education and for many years was superintendent of the Union Sunday School. His wife, a daughter and a son survive.

Alfonso Maria Padilla, M.D., Youngstown; Jefferson Medical College of Philadelphia, 1914; aged 53; died June 16. Dr. Padilla, a native of Puerto Rico, had practiced in Youngstown for 14 years. He was previously located in Butler, Pa. Surviving are his widow, a daughter and a son.

Norman O. Paulin, M.D., Cleveland; Western Reserve University School of Medicine, 1895; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died May 24. Dr. Paulin practiced in Cleveland for nearly 50 years. He was a member of the Methodist Church. His daughter, a sister and two brothers survive.

Walter Henry Scudder, M.D., Litchfield; Western Reserve University School of Medicine, 1891; aged 82; member of the Ohio State Medical Association and the American Medical Association; died April 30. Medina County's oldest practicing physician, Dr. Scudder practiced there for 51 years. A daughter and a sister survive.

Martha Shalter, M.D., Dover; National Normal University, College of Medicine, Lebanon, 1889; aged 86; former member of the Ohio State Medical Association; died May 17. One of the pioneer women physicians of the state, Dr. Shalter was one of the organizers of the first hospital in Tuscarawas County in 1900. She served as the first superintendent of the hospital, known as the Tuscarawas County Hospital, and practiced in Dover for many years. She was a member of the Methodist Church.

Charles Wesley Thomas, M.D., Warren; Western Reserve University College of Medicine, 1903; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died May 17. Dr. Thomas had

practiced in Warren for 40 years, and since 1913 had been chief surgeon for the Republic Steel Corporation there. He was a member of the Methodist Church, Masonic Lodge, Delta Tau Delta and Nu Sigma Nu fraternities. Surviving are his widow, a daughter, two sons, one of whom is Dr. Charles J. Thomas, Cleveland, and four brothers, including Dr. J. J. Thomas, Cleveland and Dr. Robert L. Thomas, Kinsman.

Allison Moore Van Horn, M.D., Sea Bridge, N.Y.; Eclectic Medical College, Cincinnati, 1905; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died June 6. Dr. Van Horn practiced in Findlay for 35 years. His widow, four sons, a brother and a sister survive.

Recent Attorney General Opinions of Interest to Physicians

Included among opinions recently issued by Attorney General Thomas J. Herbert are several of interest to the medical profession. The syllabus of each follows:

No. 5954—The management of a county home, established pursuant to the authority of Section 2419, General Code, is committed by Sections 2522 to 2577-4, General Code, to the county commissioners, and they are without authority to turn over the control and management of such county home to the trustees of a county hospital, appointed pursuant to Sections 3136, et seq., General Code.

No. 6007—1. Where an unmarried woman over 21 years of age is committed to a district tuberculosis hospital, organized pursuant to Section 3139-1, et seq., General Code, the father of such patient is not, in the absence of contract on his part, liable for the cost of the care, treatment or maintenance of such patient.

2. Where a patient afflicted with tuberculosis is committed, by action of the commissioners of the county of his residence or by their authorization, to a district tuberculosis hospital organized under Section 3139-1, et seq., of the General Code, of which district such county is not a part, such county commissioners are liable for the cost of the care, treatment and maintenance of such patient to the extent that he is unable to pay such cost.

No. 6028—The authorities in charge of a children's home cannot legally supervise feeble-minded children placed in a boarding home by the probate court pending acceptance of such children by an institution for the feeble-minded, and it would be illegal for the authorities in charge of such children's home to expend public funds so to supervise.

Do You Know - - -

Dr. Howard Dittrick, editor of *The Bulletin of the Cleveland Academy of Medicine*, received the Academy's 1943 merit award, presented annually in recognition of outstanding service over a long period of time to the Academy, organized medicine and the community.

* * *

The new president of the Ohio Public Health Association is Dr. Charles A. Doan, Columbus, professor of medicine, Ohio State University College of Medicine.

* * *

The honorary degree of doctor of medical science was conferred on Dr. W. H. Rheinfrank, Perrysburg, at the recent commencement of Bowling Green State University.

* * *

According to *Science Service*, one person out of every 221 in the United States was living in a mental institution at the end of 1941. This represents an increase of two per cent over 1940.

* * *

Major J. F. Fetterman, M.C., A.U.S., formerly assistant clinical professor of neurology at Western Reserve University School of Medicine, and now stationed at Lawson General Hospital, Atlanta, Ga., was the principal speaker at the second institute on epilepsy recently held at Cleveland under the auspices of the Aircraft Shop of the Association for Crippled and Disabled.

* * *

The National Exchange Club has announced an honorary membership for Dr. J. H. Norris, Fostoria, who recently celebrated his 88th birthday.

* * *

Ralph Klapp, dean of Franklin University college of law, Columbus, since 1935, has been named secretary of the State Industrial Commission.

* * *

Officers of the recently-organized Cleveland Society of Tuberculosis Physicians include Dr. Raymond C. McKay, president, and Dr. W. F. Hulse, secretary-treasurer.

* * *

Leaders of round-table discussions at the recent annual assembly of the International College of Surgeons included: Dr. Edward J. McCormick, Toledo, "The Prevention and Treatment of Shock in the Wounded"; Dr. Andre Crotti, Columbus, "Injuries of the Neck"; Dr. Fred M. Douglass, Toledo, "Abdominal Visceral Injuries and Management of Peritonitis".

For his activities as head of the speaker's committee of the Marion County War Bond Committee, Dr. Carl W. Sawyer was named Marion County's Man of the Month for April.

* * *

Dr. David Russell Lyman, Wallingford, Conn., was presented with the Trudeau Medal of 1943 of the National Tuberculosis Association at its annual meeting in St. Louis, May 5-6. The award is made annually to one who is outstanding in the campaign against tuberculosis.

* * *

A contribution of \$5,000 from E. R. Squibb and Sons to support the work in nutritional research of Dr. Tom D. Spies was the largest of several gifts recently reported by the Board of Directors of the University of Cincinnati.

* * *

Dr. Helena T. Ratterman, president of the Medical Women's National Association, has been made a member of the Advisory Council of the Woman's National Party. The council is backing legislation in the U. S. Congress which would give women equal legal rights with men.

* * *

A committee has been appointed by the Board of Directors of the University of Cincinnati to work on plans for a suitable memorial to the late Dr. Mont R. Reid, professor of surgery. Members are John J. Rowe, vice chairman of the Board, Dr. Reed Shank and R. K. Brodie.

* * *

Completion of a \$279,000 addition to Robinson Memorial Hospital, Ravenna, gives Portage County one of the finest hospitals of its size in the United States. The addition increases the bed capacity of the hospital from 42 to 115.

* * *

Dr. Henry M. Goodyear, associate professor of otolaryngology, University of Cincinnati College of Medicine, was one of the guest speakers at the 76th Annual Meeting of the West Virginia State Medical Association, May 17, at Charleston. He discussed: "Some Practical Considerations in the Diagnosis and Treatment of Eye, Ear, Nose and Throat Conditions of Interest to the General Practitioner".

* * *

Louis H. Pink, New York State Superintendent of Insurance since 1939, has announced his intention of leaving his present office December 31, to become president of the Associated Hospital Service of New York, filling the vacancy caused by the death of Dr. S. S. Goldwater.

Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)

ADAMS

A meeting of the Adams County Medical Society was held at the Museum of the Serpent Mound State Park, June 23. The morning session opened with an address by Dr. J. E. Pirrung, Cincinnati. After dinner a paper on "Fractures in Relation to General Practice," was read by Dr. J. R. Tillotson, Lima. A number of case histories of unusual interest were presented by members of the society. The meeting was concluded with an address by Dr. E. A. Schlueter, Cincinnati. Dr. and Mrs. R. B. Ellison, Peebles, were hosts for the meeting, at which families of members and visiting physicians were guests.—Hazel L. Sproull, M.D., secretary.

CLINTON

Dr. Frank A. Peelle, Wilmington, and Dr. James E. Rose, Sabina, discussed "Diseases of the Rectum", at a meeting of the Clinton County Medical Society, June 1, at the General Denver Hotel, Wilmington.—News clipping.

WARREN

Routine business and a general discussion of health problems was the program for a meeting of the Warren County Medical Society, June 1, at the Golden Lamb Hotel, Lebanon.—News clipping.

Second District

(COUNCILOR: H. C. MESSENGER, M.D., XENIA)

CLARK

Dr. Preston Allen, Akron, spoke on "Diabetes", at a meeting of the Clark County Medical Society, June 2, at the Springfield Country Club.—News clipping.

MONTGOMERY

Major Harry M. Kirschbaum, M.C., A.U.S., was the principal speaker at the annual meeting of the Montgomery County Medical Society, June 4, at the Dayton Country Club. He gave a demonstration of new precision instruments for the study of the altitude and pressure change effects on pilots while actually in flight. There was a golf tournament in the afternoon.—Kent Finley, M.D., president.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

Dr. Foster Myers discussed "Common Blood Dyscrasia", at a meeting of the Academy of Medicine of Toledo and Lucas County, June 4, at the Academy Building, Toledo.—Bulletin.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

New directors of the Cleveland Academy of Medicine for a three-year term ending May, 1946 are: Dr. J. Robert Andrews, Dr. Farrell T. Gallagher, Dr. David M. Keating, Dr. Forrest W. Merica and Dr. M. Paul Motto. Dr. Benjamin B. Kimmel was elected for an unexpired term ending May, 1944.—Bulletin.

LAKE

The meeting of the Lake County Medical Society, June 8, at the Lake County Memorial Hospital, Painesville, was devoted to round-table discussions. Topics included: preventive and prophylactic measures; vaccination against smallpox; toxoid inoculation in diphtheria and scarlet fever; vitamins—their nutritional value in strengthening resistance and hence controlling epidemics.

Dr. J. V. Winans, Madison, who has practiced medicine in Lake County for 50 years, has been elected to life membership in the society.—E. S. Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. George M. Curtis, chairman, department of research surgery, Ohio State University College of Medicine, Columbus, spoke on "Concerning the Nature of Blast Injuries", at a meeting of the Mahoning County Medical Society, June 15, at the Youngstown Club.—Bulletin.

PORTAGE

"Therapy of Cardiac Failure", was the subject presented by Dr. Paul Adams, Akron, at a meeting of the Portage County Medical Society, June 3, at the Robinson Memorial Hospital, Ravenna.—Emily J. Wildecombe, M.D., secretary.

STARK

The Annual Meeting of the Stark County Medical Society was held in Alliance, May 26, and was well attended by approximately 100 members and their guests from the surrounding component societies of the Sixth and Seventh Districts of the Ohio State Medical Association. A golf tournament was held in the afternoon at the Alliance Country Club, followed by dinner at 6:30 in the evening at the Alliance Elks Home. The main address of the evening was made by Dr. Edward J. McCormick, Toledo, who spoke on "Medical Problems Occurring During War".

This was followed by a demonstration by the Singer Sewing Machine Company of the new Singer Suture Needle. Guests included Past President Wm. M. Skipp, Youngstown; and Councilors Carl M. Lincke, Carrollton, of the Seventh District; A. A. Brindley, Toledo, of the Fourth District; and R. L. Rutledge, Alliance, of the Sixth District. It was voted to hold the annual picnic at Congress Lake Country Club in June, the speaker to be Dr. Wm. H. Weir of Cleveland.—R. L. Rutledge, M.D., councilor.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. Reo Swan showed motion pictures of surgical procedures at a luncheon-meeting of the Guernsey County Medical Society, May 20, at the Berwick Hotel, Cambridge.—News clipping.

LICKING

"Contagious Diseases and Immunization", was the subject of an address made by Dr. Elmer G. Horton, Columbus, professor emeritus of pediatrics, Ohio State University College of Medicine, at a meeting of the Licking County Medical Society, May 25, at the Granville Inn.—News clipping.

Tenth District

(COUNCILOR: GEORGE T. HARDING, COLUMBUS)

ROSS

New officers of the Woman's Auxiliary to the Ross County Medical Society are: Mrs. George W. Cooper, Clarksburg, president; Mrs. Walter Breth, Chillicothe, vice president; Mrs. John Franklin, Chillicothe, secretary; Mrs. Ralph W. Holmes, Chillicothe, board member for three years; and Mrs. Walter Kramer, Chillicothe, treasurer.—New clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

ASHLAND

Members of the Ashland County Medical Society, with their families, enjoyed a fish fry and covered dish dinner, June 11, at Brookside Park, Ashland. Dr. R. P. Bogniard was in charge of arrangements.—L. Harold Martin, M.D., secretary.

LORAIN

Dr. Theron Jackson, Cleveland, spoke on "Tumors of the Breast", at a dinner meeting of the Lorain County Medical Society, June 8, at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

RICHLAND

"Communicable Diseases", was the topic discussed by Dr. Christopher Leggo, director, Industrial Hygiene Service, State Department of Health, at a meeting of the Richland County Medical Society, June 17, at the Mansfield Hospital.—John F. McHugh, M.D., secretary.

Another physician, Dr. Donald B. Tresidder, has been elected to succeed Dr. Ray Lyman Wilbur as President of Stanford University. Dr. Tresidder resigned as president of the board of trustees of Stanford to accept the university presidency. Dr. Wilbur had reached the retirement age, and was appointed chancellor.

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Volume of Scientific Literature on Poliomyelitis Planned

A project which will make The National Foundation for Infantile Paralysis the only complete central, authentic source of information on infantile paralysis in the world has been announced by Basil O'Connor, president of the Foundation.

A complete bibliography of all scientific literature that ever has been published pertaining to infantile paralysis is being compiled by the Foundation, and is expected to be ready for publication in book form in the early part of 1944. The first volume will contain a record of all scientific material on poliomyelitis published in the world up to the end of 1943. Subsequently, the data will be kept up to date by publication of annual supplements.

The compilation of the information is being carried out with the aid of the library of the American Medical Association and the John Crerar Library, both in Chicago, under the direction of Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, and Dr. Ludwig Hektoen, Chicago, editor of the *Archives of Pathology*.

Appear on Nutrition Program

A number of Ohio physicians appeared on the program of the Institute on Nutrition and Health in Elementary Schools at Ohio University, June 28-July 2, sponsored by the State Department of Education and the College of Education of Ohio University. Dr. Jonathan Forman, Columbus, Editor of *The Journal*, spoke on "Hidden Hunger Threatens School Effort". A discussion on "Food and Health Needs of Elementary School Children", was lead by Dr. Lorin Kerr, Oberlin, health commissioner of Lorain County. Dr. B. B. Backley, health commissioner of Athens and Athens County, participated in a discussion of "Community Services for Children".

Western Reserve Pharmacy Dean Joins Winthrop Company

Edward Dawson Davy, dean of the School of Pharmacy, Western Reserve University, has been appointed director of the Pharmaceutical Division of Winthrop Chemical Company, Rensselaer, N.Y. For the past 21 years, Mr. Davy has been associated with Western Reserve, serving as professor of pharmaceutical chemistry until his appointment as Dean of the School of Pharmacy in 1940.

Girard—Dr. David R. Williams has been appointed local health commissioner, a post which he previously held from 1924 to 1932.

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Buckeye News Notes

Amherst—Dr. Nicholas D. D'Esopo, formerly senior staff physician at the Onondaga Sanatorium, Syracuse, N. Y., is the new superintendent of Pleasant View Sanatorium, succeeding Dr. A. A. Tombaugh who resigned to enter private practice at Willard.

Ashtabula—Dr. J. B. Stocklen, tuberculosis controller for Cuyahoga County, spoke on "The Problem of Tuberculosis Control", at a meeting of the Ashtabula County Public Health Association.

Cambridge—Dr. Fred W. Lane recently completed half a century in the practice of medicine.

Cincinnati—Dr. Clarence A. Mills, professor of experimental medicine, University of Cincinnati College of Medicine, gave an illustrated address on "Climate Makes the Man", at a meeting of the University's Alumni Association Committee of One Hundred.

Circleville—Colonel Harry D. Jackson, camp surgeon at Camp Breckenridge, Ky., was the principal speaker at the 85th commencement exercises of Circleville High School.

Cleveland—Dr. Myron Metzenbaum recently addressed the Western Pennsylvania Eye, Ear, Nose and Throat Society at Johnstown, Pa., on the subject: "Replacement of the Dislocated End of the Cartilaginous Nasal Septum to Re-establish Normal Nasal Function and to Aid in the Normal Development of the Sinuses, Jaws and Teeth".

Dennison—New staff officers of Union Hospital are: Dr. R. J. Foster, Dennison, president; Dr.

E. C. Davis, Dover, vice-president, and Dr. G. I. Goodrich, Dover, secretary-treasurer.

East Liverpool—Dr. John A. Fraser spoke on "The Diagnosis and Control of Cancer", at a meeting of the Lions Club.

Eaton—Dr. C. J. Brian is the new president of the Rotary Club.

Greenville—An illustrated talk on venereal disease was given by Dr. W. D. Bishop, health commissioner of Darke County, at a meeting of the Eaton Lions Club.

Kent—"One of the Nation's Number One Enemies: Poliomyelitis", was the subject of an address made by Dr. P. L. Harris, Portage County health commissioner, at a meeting of the Brimfield P.T.A.

Middletown—Dr. Fred Brosius spoke on "Anaesthesia", at a meeting of the Franklin Rotary Club.

Sugarcreek—Dr. A. H. Syler recently began his 41st year as a practicing physician here.

Wellston—Dr. H. W. Gillen is the new president of the Jackson County Farmer-Sportsman League.

Wilmington—Dr. Robert Conard spoke on "Progress in Medicine" at a chapel meeting of the students of Wilmington College.

Youngstown—Dr. and Mrs. H. E. Blott celebrated their 55th wedding anniversary on May 15.

Zanesville—At a recent meeting of the Optimist Club, Dr. Ward D. Coffman made an address on "The Control of Cancer". The program also included films provided by the Women's Field Army for the Control of Cancer.

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Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.



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The Physician's Bookshelf

Fractures of the Jaws and Other Facial Bones by Glenn Major, (\$7.50, *C. V. Mosby Company, St. Louis, Mo.*) is written for all who deal with fractures of the jaws, with special chapters on war injuries. It stresses the basic principles and is in all a very worth while book in this field.

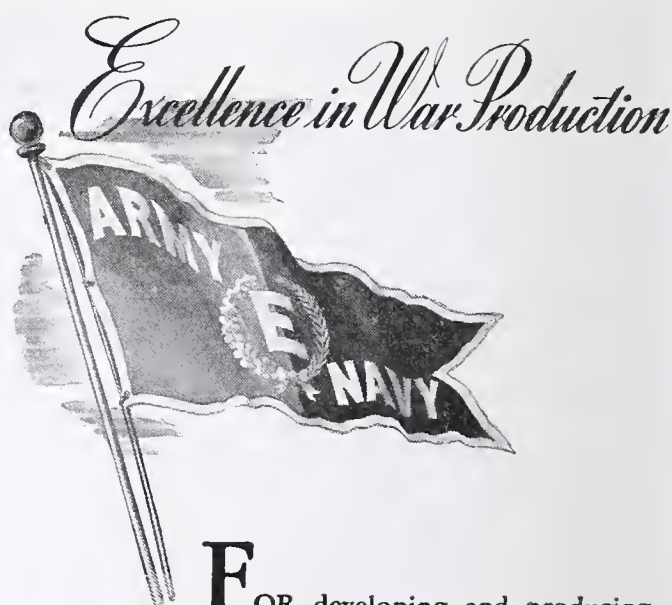
General Information For Allergic Patients by John P. Henry, M.D. (*published privately by the author from the Press of the Shepherd Printing Company, Memphis, Tenn.*) presents the facts that the author wishes his patients to know at the time their diagnostic study is summarized. We have many books in the field now for this purpose. Several of them try to cover the patient, the family doctor and other allergists at one effort. This has proven unsuccessful in most instances. Here is a book, however, that is directed right at the allergic patient, so that without any confusion he is instructed in the things he needs to know. No place in medicine does the patient need to be so well educated about his condition as he does in the field of allergy. For this purpose Dr. Henry's monograph is exceptionally well done. Anyone who wants to get in simple terms all the things that he should know about allergy for his own case or for general information will do well to read this book.

How to Learn and Advance by Samuel H. Kahn, Ph.D., (\$2.00, *Alpha Press, New York City*) is designed to stimulate thinking so that students understand that what they are doing today is to prepare themselves for fifty years or more of intelligent living. This entails the habit of budgeting time and energy. This little book which tells you how to use the library, how to get up a bibliography, how to take notes and above all, how to study, should fill a great want in the lives of many students, especially if they settle down to the serious business of studying medicine.

The Relation of Certain Anomalies of Vision and Lateral Dominance to Reading Disability by Philip W. Johnston, A. Monograph published by the Society for Research in Child Development, (\$1.50, *National Research Council, Washington, D.C.*) is a technical study of the subject indicated in the title.

Ship's Doctor by Rufus W. Hooker, M.D. (\$2.50, *Whittlesey House, New York City*) is the story of a seafaring surgeon. He has been round the world many times and has had many exciting experiences. The stories are all intensely human and very well told.

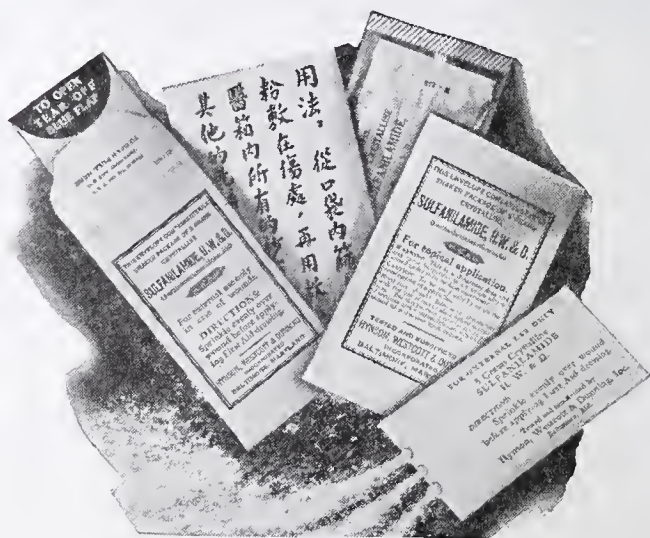
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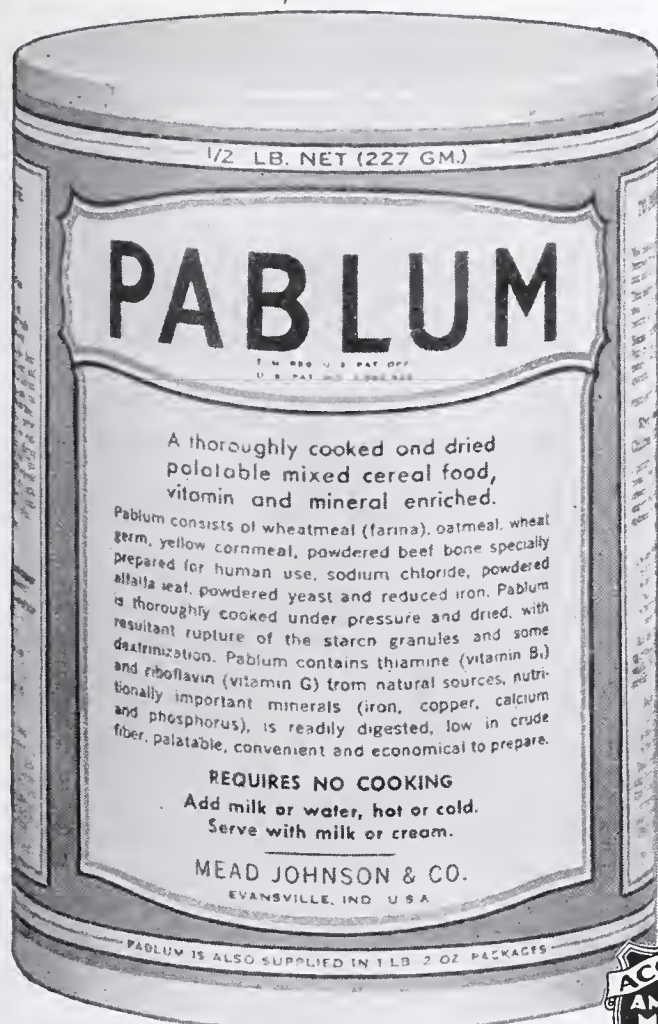
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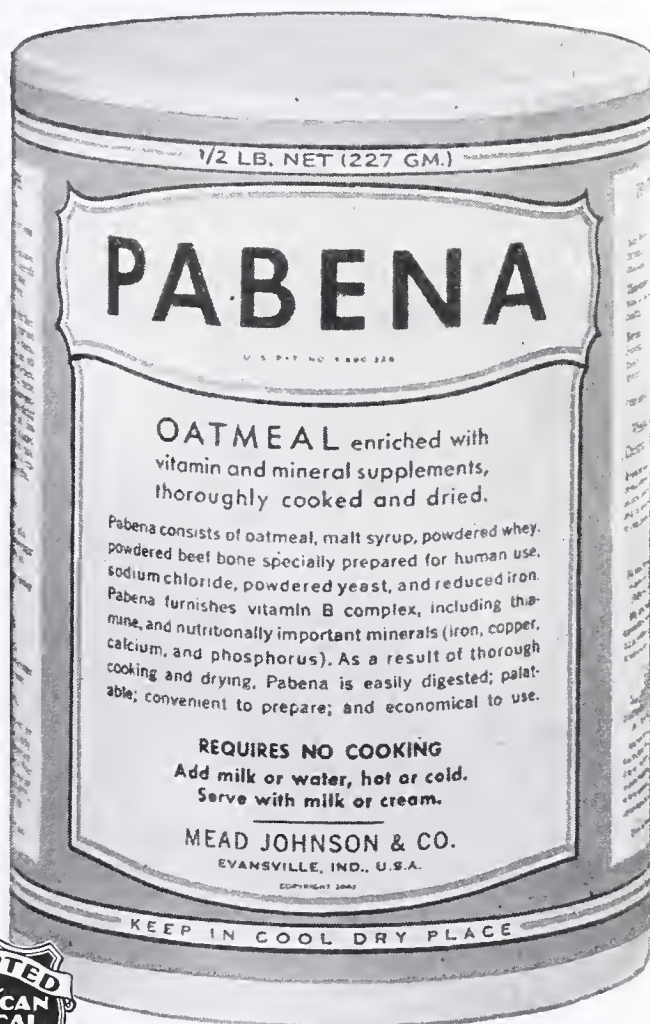
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tion Board of the *National Research Council*. Paper, Price 10 cents. pp. 20.

Current interest in nutrition is at a high level and the subject merits all the attention which it is receiving. Information about the composition of foods now is on a quantitative basis. A forceful presentation of some facts about foods as sources of the dietary essentials is provided by the present illustrated essay.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1941, with the Comments That Have Appeared in *The Journal*. (Chicago: American Medical Association, 1942, price \$1.) Contains in compact form not only the reports of the Council which have been published in *The Journal* during the past year but also some additional reports which were not considered of sufficient importance to be published in *The Journal*.

Hebrew Medical Journal, Anniversary Number (983 Park Avenue, New York City) is largely devoted to a symposium on peripheral vascular diseases.

Contributors to the symposium are Dr. Leo Buerger who has written an editorial on "Peripheral Vascular Disease in Retrospect"; Dr. William Bierman, "Physical Therapy in Peripheral Vascular Disease"; Dr. Charles F. Bolduan, "Some Data on the Prevalence of Diseases of the Peripheral Vascular System"; Dr. William S. Collens, "Arteriosclerosis Obliterans"; Dr. Aaron Dubnove, "The Role of Vitamins in the Etiology and Treatment of Peripheral Vascular Diseases"; Dr. Charles Goodman, "Thrombo-Angiitis Obliterans and Typhus Fever"; Dr. David W. Kramer, "Gangrene of the Lower Extremities: Consideration of and Differential Diagnosis"; Dr. Samuel Silbert, "Treatment of Thrombo-Angiitis Obliterans."

The content of the Journal is not confined to technical medical topics, but contains several sections covering a variety of related subjects, such as Medicine in the Bible and in the Talmud, analysis of medieval medical manuscripts, Palestine and health, etc. This issue of the Journal contains Dr. Milton B. Asbell's article on "The Practice of Dentistry Among the Ancient Hebrews" and Dr. Morton J. Robbins has brought to light an old Hebrew manuscript, "Physician's Prayer."

For further information communicate with *The Hebrew Medical Journal*, 983 Park Avenue, New York City.

Indigestion, Its Diagnosis and Management by Martin Rehfuß, M.D., (\$7.00, W. B. Saunders & Company, Philadelphia) appears in an attractive format and is written for the general practitioner who is interested in the problems of digestion. This monograph reports the experiences of the

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*Hirsch, M. M., and Novak, M. V.: Evaluation of Germicides with Relation to Tissue Toxicity. Proc. Soc. Exper. Biol. and Med., June, 1942.

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30 years of active practice is gastroenterology by its distinguished author. In addition to the usual clinical subjects it contains the newer knowledge of nutrition, preventive medicine, allergy and the care of the aged.

Mental Health in College by Clements C. Fry, M.D. and Edna G. Rostow (\$2.00, *The Commonwealth Fund, New York*) is a study of the emotional problems presented by students who consulted the Division of College mental hygiene in Yale's Department of University Health. The boys who are the subject of this book are the pick of our youth, carefully reared, and expensively educated. The author has lived with them and worked with them. He has studied the way in which they live, the people and values they admire, the pleasures they pursue, and thus he has gained a rich insight into the behavior of the typical students such as might be found on any campus. He discusses factors in university and home life that bear on the emotional problems of these young men, and although it is written by a scientist it is done simply and clearly.

My Flight To Mayaland (Souvenir Booklet published privately by the author, *Louis R. Effler, M.D., Toledo, Ohio, Third Edition*) tells the story of our friend's visit to the sacred city of ancient Mayaland civilization in Yucatan.

My Flight to Uxmal by Louis R. Effler, M. D., 222 Michigan St., Toledo, Ohio, (a souvenir booklet published privately) is a tourist guide to the commercial capitol of ancient Mayaland in Yucatan.

Marriage Before and After by Paul Popenoe, (\$2.00, *Wilfred Funk, Inc., 354 Fourth Avenue, New York City*) is one of a series of contributions which the author has made to the subject of family relations. It sets forth advice which the author's experience as General-Director of the American Institute of Family Relations in Los Angeles has well prepared him to give. It has been their experience that intelligently planned marriages do not fail and that failure in marriage is therefore a personal responsibility. This book tells how you can underwrite your own marriage to guarantee its success.

Renal Lithiasis by Charles C. Higgins, M.D., (\$3.00, *Charles C. Thomas, Springfield, Illinois*) is the Beaumont Lecture in 1942 and represents ten years of study of the subject by the author, one of our own members. He presents experiences a part of which are 40 cases in which dissolution of the calculous has occurred with x-ray confirmation. Complete diets are outlined. There is a bibliography of 82 references appended and the whole volume represents in size, format and method of presentation, about the ideal in book

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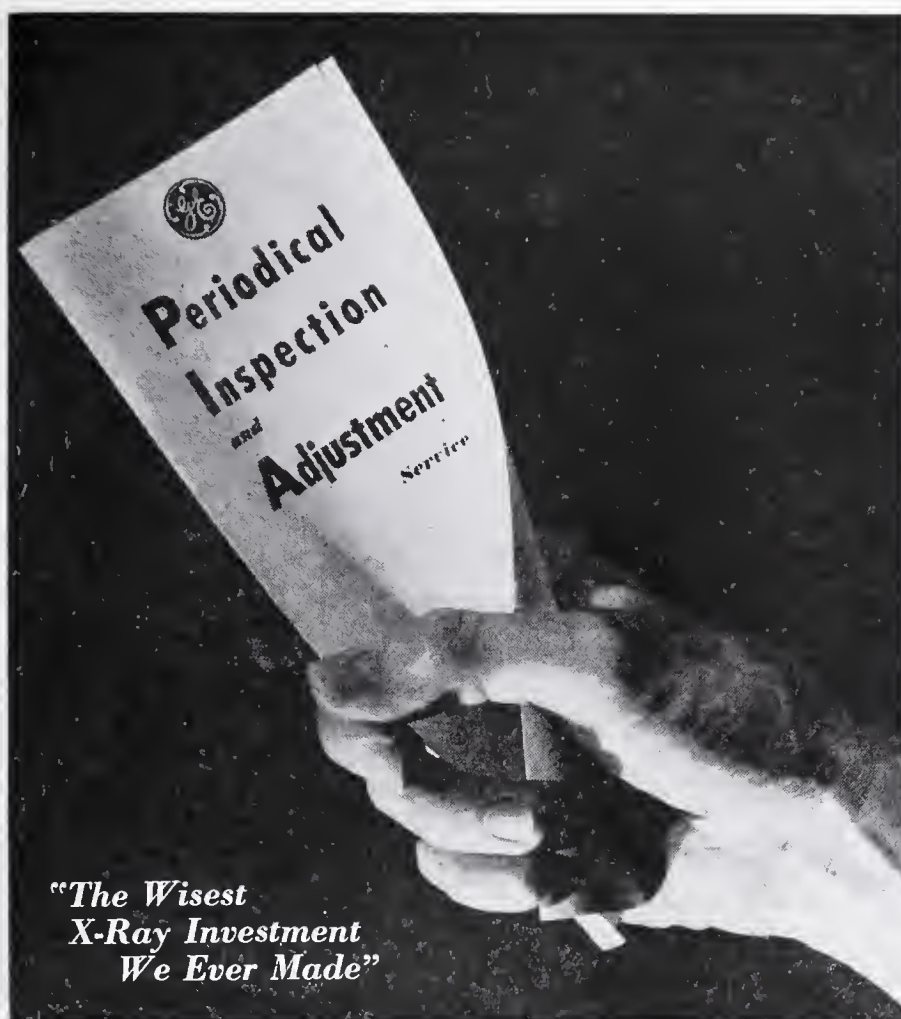
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writing and book making. Medicine needs a lot more of this type of contribution.

Creatine and Creatinine Metabolism by Howard H. Beard (\$4.00, *Chemical Publishing Company, Inc., New York, N.Y.*) is the first volume in 16 years on the subject and so is most welcome. The subject is treated in connection with carbohydrate metabolism, muscular contraction, phosphate bond energy, phosphorylation and respiration, physical fitness, nutritional muscular dystrophy and the vitamins as well as its place in the myopathies and diseases of the heart.

Miracles of Military Medicine by Albert Q. Maisel (\$2.75, *Duell, Sloan and Pearce, Inc., 270 Madison Avenue, New York City*) deals with sulfa drugs, dried blood, new anesthetics, tetanus toxoid, yellow fever inoculations, new synthetic specifics, and new surgical operations. The book gives a good review of modern military medicine. It leaves the reader, however, with the false impression that there are medical advances due to war. Wars bring nothing but scourges. Military surgeons do have the opportunity to carry out on an extraordinarily large scale what has already been proven in the laboratory but no consolation is to be taken in any supposition that medicine is advancing by reason of war.

The Anatomy of The Nervous System by Stephen W. Ranson, M.D. (\$6.50 *Fifth Edition, W. B. Saunders Company, Philadelphia*) continues to present the subject on the same high plane as previous editions and the length of the text has been increased to fit the rapid advances in the science of neurology.

My Cruise Down the Mississippi, a Souvenir Booklet by Louis R. Effler, M.D., Toledo, Ohio (*published privately*) reports a three week cruise down the Ohio and Mississippi Rivers from Ohio to New Orleans and return on the good ship *Gordon C. Greene*, which only proves what should be better known in this country, that more of our people should be taking these river cruises.

Pushkin, a Collection of Articles and Essays on the Great Russian Poet, by the U.S.S.R. Society for Cultural Relations with Foreign Countries, is a beautiful volume in English that will repay all who read it. One not familiar with the Russians comes away from it with a feeling that he does understand just a little better and with a realization of how difficult it is for the peoples of this world to understand each other.

War Injuries of The Chest by H. Morriston Davies and Robert Coope (\$2.00, *A William Wood Book, The Williams & Wilkins Company, Baltimore*) is a little one hundred and twenty-eight-page manual that gives you just about everything that is known on this subject which has recently gained so much importance.



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Chemotherapy of Gonococcic Infections by Russell D. Herrold, B.S., M.D., (*C. V. Mosby Company, St. Louis*) brings this subject up to date. The author is well fitted to the task of writing the book, having spent 25 years in attempting to correlate clinical and laboratory observations on these infections.

Principles and Practice of War Surgery by J. Trueta, M.D., (*The C. V. Mosby Company, St. Louis*) is the author's account of his surgical experiences during the recent war in Spain, then with the French and the English. His system of treatment rests upon five basic points: (1) prompt surgical treatment; (2) cleansing the wound with the idea of "removing the dirt," soap and water used; (3) an incision of the wound which is the keystone to the whole technique; (4) provision for drainage; (5) immobilization in a plaster of paris cast. This book, of course, is a "must" on the shelves of all those who are interested in war surgery.

A Doctor's Daily Diary, published privately by the author, *Louis R. Effler, M.D., Toledo, Ohio*, is a series of daily entries over a period of several months which stands as an excellent contribution to the history of the practice of medicine in our times. Historians of the future will need

more works like this when they come to write the story of our times.

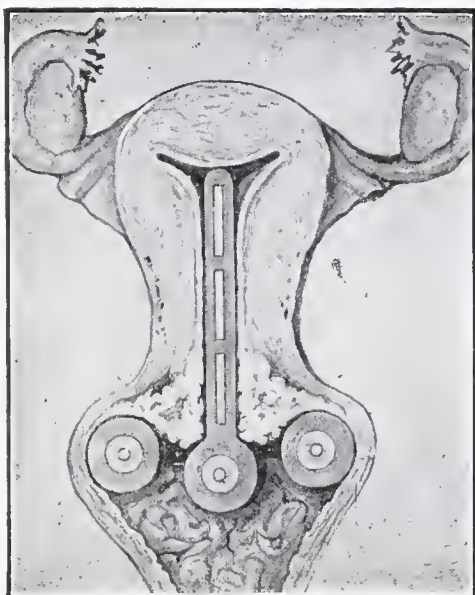
My Scrapbook of Medicine, published privately by the author, *Louis R. Effler, M.D., Toledo, Ohio*, gives in two volumes a series of squibbs in prose and verse that are calculated to throw a few highlights on some of the events that have made medical history. They make delightful bedside books for any physician.

The Essentials of Proctology by Harry E. Bacon (\$3.50, *J. B. Lippincott, Philadelphia*) offers to the student, the general practitioner and the general surgeon a concise, fluent and detailed exposition of the current practice and the author's experiences in diseases of the lower bowel.

District Nurse, by Faith Baldwin (*Center Books, Rockefeller Center, N.Y.*) is an inexpensive reprint from the original plates of this popular work of fiction.

Clinical Diagnosis by Laboratory Methods, a Working Manual of Clinical Pathology by J. C. Todd and A. H. Sanford, (*10th Edition, Saunders & Co., Philadelphia*) has been one of the standard texts in its field for the past 35 years. Its pages have followed closely the marvelous developments

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and the book has grown in size with each new edition. The chief changes in the current edition is the inclusion of much new material and many new illustrations.

Burns, Shock, Wound Healing and Vascular Energies, prepared under the auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council (\$2.50, *Saunders & Company*) is one of the series of manuals prepared for military needs and consequently stands as the current authority.

The Sight Saver by C. J. Gerling (\$2.00, *Harvest House, New York City*) is organized in an alphabetical sequence furnishing the speediest means of referring to many special subjects. It literally presents everything from accidents to yellow spots.

Seven Mile Harvest, The Life of John Murphy Withrow, 1854-1931, by Margaret W. Farney (*Progress Publishing Company, Caldwell, New Jersey*) is a book of much interest because it gives us the life of this distinguished Ohio physician who gave so much strength and vitality to the school system of Cincinnati. Is a book that makes all Ohioans proud.

General Zoology, By Tracy I. Storer (\$3.75, *McGraw-Hill Book Company, Inc., New York City*) is an excellent text by the Professor of Zoology in the University of California, at Davis. It has several very excellent special features of which the best are the synopses of classification; special table summarizing many topics such as vitamins, characteristics of blood cells, Mendelian characteristics of animals, etc., and an excellent set of new illustrations.

Principles of Photographic Reproduction, by Carl W. Miller (\$4.50, *The Macmillan Company, New York City*) is a complete text on the subject, well written, beautifully illustrated, treating both black and white and colored reproductions.

The Comley and Coleman Fund for Medical and Surgical Research of Ohio State University, Collected Reports, Volume I, 1939-1941, presents a surprisingly wide range of investigation in the 22 papers collected here and shows how helpful a fund of this kind can be to a medical school. Justifies the gift and directs favorable attention toward the University for the quality of investigative work it has been able to undertake through these funds.

Thoughts of A Psychiatrist On And After The War by William A. White, reprint, *William Alison White Psychiatric Foundation, Inc., 1835 Eye Street, N.W., Washington, D.C.*, is a report of the thoughts of this distinguished scientist about the first World War. Twenty years after-

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ward we face again the same problems because we failed to crystallize our thoughts and speculations as he has done.

My Flight to Hopiland, A Tourist Guide (Souvenir Booklet Published privately by the author, *Louis R. Effler, M.D., Toledo, Ohio*) sets forth the author's experience in the capitol of the Hopi Indians in Arizona. This booklet sets forth clearly another reason for seeing America first.

Obstetrical Practice by Alfred C. Beck (\$7.00, *Third Edition, Williams and Wilkins, Baltimore, Maryland*) is a well established textbook which has been distinguished by its noteworthy new arrangement by which the story of the birth processes is presented in a definitely chronological manner. Eleven hundred drawings make it almost an Atlas. In this edition Dr. Beck has rewritten the section on operative obstetrics.

Principles and Practices of Obstetrics by Joseph B. DeLee, and J. P. Greenhill (\$10.00, *W. B. Saunders Company, Philadelphia*). This is the eighth edition of this standard text. The chapter on toxemias of pregnancy has been entirely rewritten. The sulfa drugs have been carefully treated in relation to the subject. Nearly all the additions, deletions and corrections made by the new author had the approval of Dr. DeLee before his death.

Heart Disease Is Curable, by Peter J. Steincrohn, M.D. (\$1.98, *Doubleday Doran Co., New York City*) is an entertaining and informative book which debunks many of the common fallacies about the heart and heart disease. Its optimistic outlook should be healthy for the heartsick. It is by the author of *You Don't Have to Exercise*.

Marriage, Morals and War, by Richard Malkin (\$2.50, *Arden Book Company, New York*) is a brilliant analysis of moral problems in war time. The author brings many controversial issues into focus, for which he will no doubt be attacked, but he must be given credit for having the courage of his own 29 years to compel us to rethink these vital problems.

The Inner Ear Including Otoneurology, Otorrhinology and Problems in Modern Warfare, by Joseph Fisher and Louis Wolson (\$5.75, *Grune and Stratton, New York City*) has been distilled from the 20 years of post-graduate lecturing which the senior author did in Vienna, brightened by the practical contributions of the junior author, a practicing otologist in Boston for more than 20 years.

Methods For Diagnostic Bacteriology, by Isabella G. Chaub and M. Kathleen Foley (\$3.50, *C. V. Mosby & Co., St. Louis, Second Edition*),



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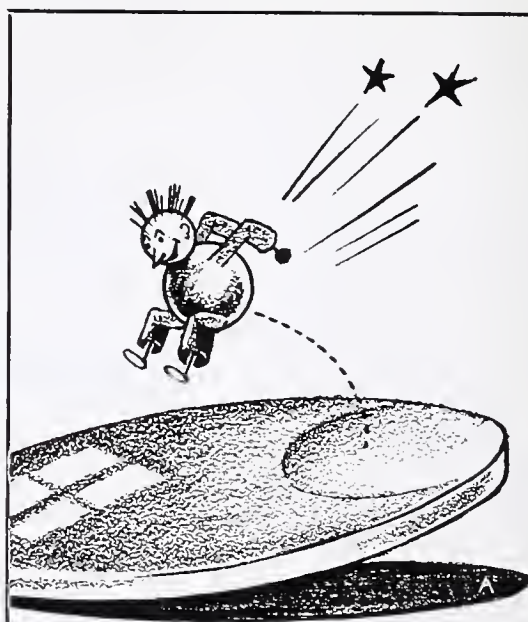
Kenny Concept of Infantile Paralysis and Its Treatment, by John F. Cole, M.D., in collaboration with Sister Kenny, (\$5.00, *Bruce Publishing Company, St. Paul, Minn.*) presents in a well conceived manner the Kenny treatment for the relief of pain and muscle spasms by the early and continued use of hot packs and a well defined plan for the re-education of the neural-muscular system.

Man In Structure and Function, by Fritz Kahn, M.D. (Two Volumes, \$10.00, *Alfred A. Knopf, Inc., New York City*) is the American Edition of this remarkable work. Every exposition is clarified by the most unusual pictures. These drawings, photo-montages and diagrams establish the unique character of the work. "On dramatic scale of Doré Bible illustrations they show the components of the body in full organic splendor, endowed with function and life." A portfolio of these illustrations was reproduced in *Life* on April 19, 1943. To see them is to want the book. To own the book is one of the pleasures of life.

Gynecology, With a Section on Female Urology, by Lawrence Wharton, M.D. (\$10.00, *W. B. Saunders Company, Philadelphia*) is a new text by an associate in Johns Hopkins University. The book has been written with the medical student in mind, and therefore at the beginning of each chapter is an outline. The illustrations are prepared with the usual brilliancy of Hopkins, and the author seems to be able to keep clear and distinguish at all times between his personal opinions and established facts.

Neurosurgery and Thoracic Surgery, Military Manual, edited by Committee, National Research Council (\$2.50, *Saunders*) is another in the series of military manuals prepared with the same care and excellence.

Food Poisoning, by G. M. Dack (\$2.00, *University of Chicago Press, Chicago, Illinois*) is a much needed book. As we go on into the war outbreaks of infected food poisoning will occur more frequently in attempts to utilize leftovers, particularly where mass cooking is done. These University of Chicago monographs have such careful editorial consideration that they can always be depended upon. Every physician should prepare himself for emergency by familiarizing himself with this volume.



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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154. *Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60. *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241. *N. Y. State Journ. Med.*, Vol. 35, 6-1-35, No. 11, 590-592

Manual of Industrial Hygiene and Medical Service in War Industries, by William M. Gafafer, editor (\$3.00, *Saunders, Philadelphia*) has been prepared by the Division of Industrial Hygiene, National Institute of Health, U.S. Public Health Service. It is designed to serve the Commission as they administer to the more than 17,000,000 workers in war industries. The foreword is written by Clarence D. Selby, Past President of our own Association.

The 1942 Yearbook on Dermatology and Syphilology, edited by Fred Wise and Marion B. Sulzberger (\$3.00, *The Yearbook Publishers, Chicago*). Your reviewer always looks forward to the special article in the front of these volumes and this time he is not disappointed to find an excellent discussion of the treatment of burns, a guide for general practitioners. The annual bears the deep imprint of war, and so we find many arctic and tropical diseases discussed.

Standard Nursing Procedures, prepared by the Committee on Nursing Standards, Department of Hospitals, New York City, Mary Ellen Manley, Director, (\$3.25, *Macmillan Company*) is a compilation primarily for the use of nurses in the several institutions in the city of New York. The book should be read by all who are interested in nursing because of its philosophy as well as its factual information.

A Primer of Allergy, A Guidebook for Those Who Must Find Their Way Through the Mazes of this Strange and Tantalizing State, by Warren T. Vaughan, (\$1.75, *Second Edition, C. V. Mosby Company, St. Louis*) is the best of all of these lay manuals; best because it is adapted not only to the author and his patients, but is also serviceable to the needs of the rest of us. Your reviewer has kept twelve of these little primers circulating among his patients. In this second edition there have been no basic changes but many helpful improvements.

March of Medicine, The New York Academy Lectures to the Laity, (\$2.50, *Columbia University Press, New York City*) is up to the standard of previous volumes in this annual series designed to stimulate interest and to furnish factual information in matters of health. In this year's series we find tuberculosis, coma of the brain and the mind, the Freudian epoch, genius, giftedness and growth, the history of the B Vitamins, and the newer knowledge of nutrition. All are presented by outstanding authorities in terms which laymen can understand.

Better Homes and Gardens' Baby Book, by Gladys Denny Shultz (\$2.50, *Meredith Publishing Company, Des Moines, Iowa*) is a sane presentation of factual material that is needed more than ever in war time. It is complete. It is authoritative.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

August, 1943

No. 8

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The Procurement and Assignment Service for Physicians, Dentists and Veterinarians

Responsibilities, Accomplishments and Future Problems

HAROLD S. DIEHL, M.D.

A LITTLE more than a year has passed since October 30, 1941, when the President of the United States, by executive order, created the Procurement and Assignment Service for Physicians, Dentists and Veterinarians. The reason for this order was the realization that adequate medical and health services for both military and civilian populations are essential for the effective prosecution of a war. The action was taken upon the recommendation of the American Medical Association, the American Dental Association, the Surgeon Generals of the Army, the Navy, and the United States Public Health Service, and Mr. Paul V. McNutt, as Chief of the Office of Defense, Health and Welfare Services. This makes the Procurement and Assignment Service, morally at least, responsible both to the government of the United States and the medical, dental, and veterinary medical professions of this country. In view of this it is appropriate that a brief report should be made at this time of the accomplishments of this service to date and the problems and responsibilities remaining for 1943.

In general terms, the responsibility of this Service is to plan for the distribution of the services of the physicians, dentists and veterinarians of this country so as to meet as effectively as possible the needs of both the armed forces and the civilian population during the war.

The plan of procedure contemplated by the Di-

The Author

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recting Board at its early meetings was to proceed in an orderly manner to appraise the medical personnel of this country, their qualifications, and their availability for military or civilian services in case of war. Unfortunately, the ink was hardly dry on the President's executive order before we were plunged into the midst of war. This made it necessary for the Procurement and Assignment Service to formulate policies, develop its organization, and begin to function all at the same time. There was no blueprint to follow, no past experience upon which to draw.

ORGANIZATION AND ADMINISTRATIVE RELATIONSHIPS

Although its establishment antedated that of the War Manpower Commission, the Procurement and Assignment Service was made administratively responsible to that organization immediately upon its creation. This made the Procurement and Assignment Service what might be called the Medical division of the War Manpower Commission. Although official channels between

Read before a General Session, Ohio State Medical Association, at the Ninety-Seventh Annual Meeting, Columbus, March 30, 1943.

the Procurement and Assignment Service and the War and Navy Departments are through the Director of the War Manpower Commission, the vast majority of the relationships with the Army and the Navy are conducted directly and informally with the Offices of the Surgeon Generals of these services. In fact, the Directing Board of the Procurement and Assignment Service holds monthly meetings with the Surgeon General of the Army, the Surgeon General of the Navy, the Surgeon General of the United States Public Health Service, the Director of Selective Service and such members of their staffs as they elect to accompany them. The results of these conferences and informal relationships have been so satisfactory that very few communications through official channels have been necessary. Without this splendid understanding and effective cooperation on the part of these services, the task of the Procurement and Assignment Service would have been an impossible one.

The organization of the Procurement and Assignment Service consists of a Directing Board, a Central Office in Washington, a Consultant's office in the headquarters of the American Medical Association in Chicago, and Corps Area and State Committees, with local, county, or district committees serving in an advisory capacity. The physicians on these various boards and committees have given unselfishly and unstintingly of their time and services. Without compensation, at great personal sacrifice, and at times in spite of uninformed or malicious criticism, these men have rendered and are continuing to render an invaluable and patriotic service to our country in its war effort. It is primarily to the chairmen and the members of State and local Procurement and Assignment Service committees that the real credit for the accomplishments of this service belongs.

With the American Medical Association and the various state medical societies, the Procurement and Assignment Service has a most intimate, though unofficial, relationship. In 1940 the American Medical Association at great expense and effort prepared a roster of all the physicians in the United States with detailed information in regard to their training, experience and qualifications. This invaluable roster was made available to the Procurement and Assignment Service immediately after its organization. In addition, the American Medical Association has made its staff and facilities available at all times to aid in the work of the Procurement and Assignment Service. In like manner, state medical societies not only have cooperated wholeheartedly, but in many instances have provided a large portion of the expenses and carried much of the work of the State and local Procurement and Assignment committees. Without this assistance and support, the work of the

Procurement and Assignment Service could not possibly have been carried out. To these various medical associations we acknowledge our deep indebtedness.

ACCOMPLISHMENTS OF 1942

With the rapid expansion of our armed forces last year, the first responsibility of the Procurement and Assignment Service was clearly to cooperate with the Army and the Navy in the recruitment of the medical officers which they needed. Our boys, and now our girls, whether they be in Africa, India, Guadalcanal, Australia, Alaska, or the continental United States, must be provided with the best of medical care. I am sure that everyone would agree that the provision of medical services to those who are risking and in many cases sacrificing their lives in defense of our country deserves first priority in the allocation of physicians.

Second, probably, comes the need of the medical schools for teachers to train more physicians under the accelerated program of medical education. These institutions, which have been mobilized 100 per cent for the war effort, serve as the only source of supply for additions to or replacements of physicians for both the armed forces and the civilian population.

Next, in order of priority, comes the provision of medical care for workers in the war industries. These workers must be kept on the job, producing the materials of war without which armies and navies are helpless in modern warfare.

This leaves as last on our priority list the needs of the general population for medical services. This does not mean that the civilian population will have to get along with what is left after the armed forces, the medical schools and the war industries have taken all the physicians that they want. The effective prosecution of a modern war requires the mobilization of the entire resources of the nation in support of the war effort. Under such circumstances, it is clearly necessary that a sufficient number of physicians be retained to provide essential medical services for the civilian population. Recognizing this, the Army and the Navy have agreed not to grant commissions to physicians declared essential by the Procurement and Assignment Service for civilian medical care. Likewise, local Selective Service boards have been directed by National Headquarters to secure the recommendation of the Procurement and Assignment Service whenever they are considering the classification of a physician, dentist or veterinarian.

RECRUITMENT OF PHYSICIANS IN 1942

At the outbreak of war there were approximately 13,000 medical officers on duty in the Army and the Navy. At the end of 1942,

approximately one year later, this number had increased to over 42,000. The recruitment of such a large number of physicians in a short period of time was a colossal undertaking. Except for a few single men who came under the jurisdiction of Selective Service, there was no authority to compel physicians to go into the Service. What has been accomplished has been entirely on a voluntary basis. The Procurement and Assignment Service possesses no authority to say to a physician that he must go into the service or that he must stay at home. Some of the Army recruiting boards in their zealous efforts to recruit physicians presumed and even threatened to use authority which they did not possess. Actually neither these boards nor the Procurement and Assignment Service has authority to exercise compulsion upon anyone.

Early in last year it seemed for a time that physicians were slow in responding to the call for their services. By the end of the year, over 50 per cent of the practicing physicians under 45 years of age had entered the armed services. No other professional group in this country has ever been called upon for such public service or responded to a call so magnificently.

During the first world war, the recruitment of physicians for the Army and Navy was carried on with little or no consideration for the needs of the civilian population. Many areas and communities were left without medical service, while in other areas excessive numbers of physicians remained in civilian life. To help prevent a similar situation this time, the Procurement and Assignment Service established quotas as to the number of physicians which each state was expected to supply in 1942. These quotas represented the proportionate share of the 42,000 medical officers requested by the armed forces, which it seemed equitable for each state to provide, taking into consideration the population of the state, the number of physicians in civilian practice, their ages, distribution, etc. These quotas for states with relatively few physicians in relation to population required only 10 to 15 per cent of the practicing physicians; while at the other end of the scale, the quotas of states such as New York and Illinois represented up to 30 per cent of the physicians actively engaged in civilian practice.

The country as a whole and all but five individual states met or exceeded the quotas assigned to them for 1942. From a few areas, particularly in the South, too many physicians have gone into service, leaving the civilian population without adequate medical care. Some of these physicians held commissions in the Reserve Corps of the Army or Navy and were called to active duty; others volunteered early before the Procurement and Assignment Service program became operative; others were released

by the State Procurement and Assignment Committees because it seemed that there were sufficient numbers of doctors remaining to care for the civilian population. In some instances, these calculations were upset by illness or death among the remaining physicians or by the unanticipated influx of large populations in connection with war industries or war activities. I know of one county in which there were three physicians. The youngest of these was declared "available" for military service. Subsequently one of the two remaining physicians has died, and the other has had a "coronary attack", which seriously limits his availability for practice. The result is that this county is now critically short of medical service.

THE MAINTENANCE OF CIVILIAN MEDICAL SERVICES

In order to safeguard civilian medical services, the chairmen of the State Procurement and Assignment Committees have been directed to designate as "essential" those physicians considered necessary for the provision of essential civilian medical services.

To aid in this, *medical schools* have been authorized to submit lists of their faculty members, marking as "available" those whom they could release for service with the armed forces but listing as "essential" those who constitute the minimum staff necessary to conduct a sound teaching program. These reports specify the subjects that each individual is teaching and the amount of time he is devoting to such teaching. All lists of "essential teachers" as submitted by the medical schools are reviewed by the Medical Education Committee and the Allocation Committee of the Procurement and Assignment Service. The opinion of these committees in regard to the lists is then sent to the chairmen of the respective State Committees who are responsible for decisions as to who is "available" and who "essential". The objective is to retain adequate teaching staffs for the medical schools, but to do so without withholding from military service more than the minimum number of men who are physically qualified for military service.

Analysis of the medical school lists which were submitted last summer for the current academic year showed that up to that time 21 per cent of the physicians on medical school faculties were in Army or Navy service as compared to 12 per cent of all the physicians in the United States. In addition, the medical schools listed as "available" 25 per cent of the physicians of military age remaining on their staffs.

Industrial medical service assumes increasing importance in connection with the war. The criteria as to the conditions under which physicians

in industry should be considered "essential" were prepared by the Committee on Industrial Health of the Procurement and Assignment Service. This Committee recommended that essential industrial medical services be continued but that physically fit young physicians of military age serving in industry should be replaced as rapidly as possible by those who are not physically fit or otherwise ineligible for military service.

Public health services must be maintained for the protection of the health of the armed forces as well as of the civilian population; yet the staffs of these services contained many physicians with training and experience urgently needed by both the Army and the Navy. Epidemiologists, parasitologists, bacteriologists, statisticians, and public health administrators are urgently needed for the prevention and control of diseases among our soldiers who are serving in all parts of the world. In order that public health services might be maintained and yet as many as possible of these specialists relieved, all state, city and county health departments were requested to prepare lists of personnel, indicating which ones of military age could be released for military service and which ones are considered as essential for the effective functioning of the health department. These lists are reviewed by the Public Health Committee of the Procurement and Assignment Service.

Hospitals. Most of the members of the clinical staffs of hospitals are physicians practicing in the community and are designated as "available" or "essential" on the basis of the importance of their services to the community as a whole rather than to any individual hospital. On the other hand, in many of the large charity and teaching hospitals, certain residents and physicians in charge of special services, such as the X-ray and laboratory departments, are essential both for the clinical instruction of medical students and for the adequate care of the hospital patients. With this group the problem again is to release as many as possible for service with the armed forces and still retain the minimum number essential for the proper functioning of the institution. To accomplish this, hospitals approved for residencies have been requested to prepare lists of residents and other physicians who are on full time status or chiefs of large charity services, indicating those whom they consider to be the minimum essential staff of the hospital. These lists have been reviewed both by the Hospital Committee and the respective State Committees of the Procurement and Assignment Service.

"Boom Towns". During the past year many towns have experienced a mushroom growth as a result of war industries or military or naval installations. Some of these have given rise to

critical shortages of medical services. Numerous articles have been written about these areas, frequently with gross exaggerations as to their number and seriousness. In many instances the workers in these war industries are recruited from persons already residing in the area. In others, if the influx of population is not excessive, the physicians in the community are able to provide the necessary medical care. On the other hand, there are a number of areas in which the shortage of medical services is truly critical. I have visited one community which in a little more than a year has grown from 15,000 to 65,000 population and it is expected that by July, 1943, the increase will reach 110,000. Another area which had approximately 40,000 population before the war now has 110,000 and is expected to have 145,000 by mid-summer. In the country as a whole, there are number of such areas.

PROVISION FOR MEDICAL CARE IN CRITICAL SHORTAGE AREAS

Last summer and fall a number of agencies in Washington became concerned about the shortage of medical services in these areas, and numerous conferences were held to define lines of responsibility and to outline procedures to deal with the situation. On the basis of these conferences, the Directing Board of the Procurement and Assignment Service formulated certain policies in regard to the investigation of the need and the provision of medical care in critical shortage areas. These policies, which were approved by the United States Public Health Service, by the Trustees and the War Participation Committee of the American Medical Association and by the War Manpower Commission, placed the primary responsibility for the investigation of these areas and for the formulation of plans to meet these needs upon the Procurement and Assignment Service and the local medical profession, with the cooperation and assistance of the United States Public Health Service. In approving these principles, the War Manpower Commission said, "This approval is given with the understanding that the plan places a grave responsibility on the organized medical profession, and that the Procurement and Assignment Service has the obligation of assuring that this responsibility is effectively discharged".

To meet these responsibilities, the Directing Board requested detailed reports from the State Chairmen concerning changes in population, the medical personnel, and the medical and health facilities available and needed in communities or areas in which there are war industries or war activities or in which there is a known or expected shortage of medical services. In investigating the needs of these areas, the State Procurement and Assignment Committees were ad-

vised to seek the "cooperation of the state medical society, the state dental society, the state health officer, of industry, of organized labor, and of other agencies, such as the State Defense Council, which should be able to make significant contributions to the solution of this problem". In addition, the Surgeon General of the United States Public Health Service has directed the regional representatives of this Service to cooperate in the conduct of these investigations.

When these investigations revealed a need for additional physicians or other medical or health facilities or personnel, the principles provided that: "Whenever possible civilian needs as determined by these committees should be met through local arrangements, resources, and agencies. In case assistance is needed for the organization, administration, or financing, of necessary medical services in these areas, the responsibility for formulating the plan best suited to each particular situation should devolve upon an agency which should include representatives of the state health department, the state medical society and the state dental society with the cooperation and support—financial and technical—of the appropriate federal agencies; the administration of such plans to be delegated to the appropriate official state agency". It is recognized that the United States Public Health Service is the federal agency which will be responsible for the provision of funds or personnel which may be required to provide the necessary health services in these areas.

In the formulation and execution of this program, there has been complete harmony and cooperation between the Directing Board of the Procurement and Assignment Service and the United States Public Health Service as represented by Surgeon General Thomas Parran and Assistant Surgeon General Warren Draper. Before the close of 1942, this program was inaugurated as a cooperative enterprise between the medical profession, the Procurement and Assignment Service, and the United States Public Health Service.

PROBLEMS OF THE PROCUREMENT AND ASSIGNMENT SERVICE FOR 1943

The end of the year means little in war except to provide a convenient point at which to end and begin reports. Similarly, the responsibilities and the problems which faced the Procurement and Assignment Service in 1942 carry over into 1943. Changes in emphasis occur, but these are gradual and related to the overall situation. The recruitment of additional physicians to serve with the armed forces and the maintenance of essential civilian medical services are still our major responsibilities. During the past year, however, there have been important changes in the situation confronting

us. A year ago we had what seemed to be an almost unlimited supply of physicians; the needs of the armed forces for medical officers appeared easy to fill; war industries were just beginning to draw workers and their families from far and wide; and there seemed no problem of providing medical care for the civilian population.

With the advent of 1943, an analysis of the physicians of the country revealed that the statement about our having 180,000 physicians was misleading and that withdrawals from this group were already approaching the limit of the available supply. The figures show that we do have a total of approximately 180,000 physicians registered in the United States. Of these, however, approximately 15,000 occupy full-time positions in public health departments, medical schools, insurance companies, or other governmental or private agencies not engaged in the practice of medicine; 28,000 are over 65 years of age, and for planning purposes are counted as only one-third effective by the Procurement and Assignment Service; it is estimated also that approximately 5 per cent, or a total of 7,000 of the physicians under 65 are completely or partially ineffective; 3,000 are resident physicians in hospitals; and approximately 42,000 were in the armed forces on the first of January. This leaves only about 94,500 effective physicians remaining in civilian practice. There are areas in most states which have never had more than one doctor to two, three, or even more thousands of people. We cannot hope to bring about the millenium in these areas during the war when there is an over-all shortage of physicians. On the other hand, in areas in which a shortage of physicians has been created by the war a ratio of 3,000 or more people per physician is considered by the Directing Board as probably constituting a critical situation. On a basis of this over-all ratio of one physician for 1500 population, approximately 83,000 physicians are needed to provide essential medical services for the civilian population. This leaves only 11,500 physicians who can be considered as "available" from civilian practice in 1943 to enter the military service. In addition, between 4,000 and 5,000 hospital interns and residents will become available for military service during 1943.

RECRUITMENT FOR THE ARMED FORCES

On the basis of their established tables of organization, the authorized expansion of the Army and Navy in 1943 would require between 40,000 and 45,000 additional medical officers. In spite of this, both the Surgeon General of the Army and the Surgeon General of the Navy have accepted the above computations as to the number of physicians who can be safely withdrawn from civilian practice. This means that they

will have to adjust their plans of organization and operation so as to get along with less medical officers than they consider ideal. Both the Army and the Navy, however, are willing to make these adjustments.

In accepting the recommendations of the Procurement and Assignment Service as to the number of physicians to be recruited from the civilian population in 1943, the Army and Navy have placed upon this Service, and through it upon the medical profession, the responsibility of recruiting available physicians up to this number.

As a guide in this recruitment, tentative state quotas for 1943 have been set up. These quotas are based upon the physician-population ratio in the state after the 1942 quota was met. Credit was given for physicians recruited in excess of the 1942 quota, while deficits on the 1942 quota were added to the new quotas. According to these computations, 14 states have no quotas and only 15 states have quotas of more than a hundred physicians for 1943.

The fact that some of these states have had no second quotas does not necessarily mean that no more physicians from these states should enter military service. Even in those states in which there is an over-all shortage of physicians, there probably are metropolitan areas from which some physicians can and should be released. If other areas within these states are critically short of physicians, efforts should be made to induce some of the available physicians from the metropolitan areas to move into these shortage areas. If they are unwilling to do so, they should be declared available for military service and persuaded to apply for commissions.

As a basis for future planning, State Procurement and Assignment Committees have been asked to re-appraise the physicians remaining in their states as to their availability or essentiality, their age, professional qualifications, physical capacity, and family responsibilities. As soon as these surveys have been completed, summary reports will be sent to the Central Office of the Procurement and Assignment Service, and revision of certain state quotas may be made.

RECRUITMENT PROCEDURE

The Procurement and Assignment Service proposed and the Army agreed that recruitment in 1943 should be done by the Procurement and Assignment Service instead of by Army recruiting teams. Briefly summarized, the procedure agreed upon is as follows: The State Chairmen submit monthly lists of available physicians to the Central Office. From this office letters are sent to these physicians, requesting them to apply for commissions and enclosing cards addressed to the State Chairmen, indicating their preference for Army, Navy, or Air Corps service.

The names of those choosing Army service are sent to the nearest Army Officer Procurement Board, which supplies the necessary application forms and authorizes physical examinations. A similar procedure is followed for those who prefer to serve in the Navy. In case a physician does not apply for a commission when requested to do so, it is the responsibility of the Procurement and Assignment Service, in cooperation with the local medical society, to induce him to accept the assignment which he has been given.

Some predict that it will be difficult to secure the number of physicians agreed upon for the armed forces in 1943. They point out that most of those who really want to serve are already in service. This is doubtlessly correct, but we feel certain that many more physicians will be willing to go when they are told specifically and individually that their services are needed. For others some persuasion may be necessary. As a whole, the medical profession has responded magnificently to our country's call. It is but a very small minority who would place selfish interests above professional and patriotic responsibilities.

A few days ago, however, I heard of a young physically fit physician who left a hospital residency to go into private practice. To one who asked him about army service, he replied that his draft board would defer him. Upon such individuals it would be possible for the Army, Navy, and Selective Service to exert pressure. To do so, however, would require the issuance of general directives that would reflect unfavorably upon the medical profession as a whole. It is our hope that medical societies will set up local committees to cooperate with the Procurement and Assignment Service in the recruitment of those physicians of military age who are considered available for service with the armed forces. As a specific plan of procedure it is recommended that the officers of county medical societies act as committees to make personal contact with these physicians who are requested by the Procurement and Assignment Service to apply for commissions.

The time has come when every physically fit, available physician under 45 years of age is needed to care for the boys who are risking their lives in the service of our country. Quoting a statement which Dean Torald Sollmann of Western Reserve University made to a recent graduating class in his medical school: "The time has come when it doesn't matter much that someone else evades his obligation. Each must live with his own conscience; and he who has none is missing something. Patriotism is what you give, not what you get; and what *you* give, not what the other fellow gives or withholds. And if it should turn out, as it may in a topsy turvy world, that he gets the plums and

you get the husks, well—a good doctor can lead a useful and satisfying life anywhere and anytime without plums”.

MEETING CIVILIAN MEDICAL NEEDS

The problems of civilian medical care are becoming increasingly acute as more and more physicians are taken into the armed forces. This country has more physicians in relation to population than any other country in the world, and there will be plenty available to provide essential, though not luxury, medical services for both the armed forces and for the civilian population if their services are properly distributed and utilized economically and efficiently. At the beginning of the war, there was approximately one effective private practitioner of medicine to every 1,022 persons in the United States. At the end of 1942 this figure had increased to one to 1,361, and by the end of 1943 it will be approximately one to 1,500. It is reported that England has one physician to approximately 230 persons in the armed forces and one physician to 2,700 in the civilian population. In this country the corresponding figures at the present time are approximately one to 150 for the armed forces and one to 1,400 for the civilian population. Germany is said to have approximately one physician to between 8,000 and 12,000 population. From this one can only conclude that the United States is relatively well off in terms of medical care both for the civilian population and for the armed forces.

As stated earlier, at the end of 1942 more than half of the practicing physicians under 45 years of age in this country were in the Army or Navy. By the end of 1943 practically all of those remaining who are physically fit and can be spared from civilian practice will be required to meet the minimum needs of the armed forces. This is the age group which is most active in medical practice and carries the biggest load of medical care. With them no longer available, the public is certain to feel a shortage of medical care. These shortages, however, need not be serious if the services of the remaining physicians are utilized intelligently and efficiently.

To do this it is important that patients do not call physicians unnecessarily and that, so far as possible, when they need a doctor they make appointments in advance so as to conserve the physician's time. It will be necessary also for physicians individually and as a group to plan to provide the public with essential medical services, whether they be in the office, the hospital or the home. Most physicians will need to add to their already long hours. Many who have completely or partially retired from practice will have to “carry on” once again. And all will have to share the responsibility for the medical services, including house calls, which normally would

be rendered by the physicians who are now in service.

Medical Schools. The students in medical schools are almost all members of the armed forces. Their education must be continued on an effective level. The lists of essential teachers submitted by medical schools indicate that some schools have already lost so many members of their faculties that it will be difficult, if not impossible, for them to conduct a satisfactory instructional program. Other schools have been more conservative and can release additional physicians in 1943 toward meeting the needs of the armed forces.

War Industries. The continued expansion of war industries is creating an increasing demand for physicians. The Procurement and Assignment Service and the Council on Industrial Medicine of the American Medical Association are attempting to cooperate with the war industries in securing the physicians which they need. Efforts are being made, however, to secure physicians for these industries who are not eligible for military service and to replace as rapidly as possible the physicians in these industries who would be eligible for such service.

Public Health Services. Most health departments are already functioning on skeleton staffs and are unable to release additional physicians for military service. In fact, some health departments are so urgently in need of trained personnel, that the United States Public Health Service is supplying such personnel on a “lease-lend” basis.

Hospitals. The situation in the hospitals will become increasingly difficult. In order to conserve the time of physicians, there will be a tendency to hospitalize more patients. Medical school graduates who hold commissions in the Army and Navy will be granted a year, but only a year, of internship before being called to active duty. One result of this is that many of the large hospitals which previously had two-year internships are taking more first year interns in order to “cover” their services. This can only mean that some hospitals will have less interns than normally.

Hospital residences will be continued, but the number of residents who can be deferred from military service will be very limited. Consequently, hospitals will find it necessary to depend, almost entirely, upon residents who are not acceptable for military service.

Critical Shortage Areas. It is estimated that approximately 6,000,000 people in this country have moved their homes as a result of the war. The provision of medical and health services to this group is one of the most important problems facing the medical profession and the Procurement and Assignment Service today. The principles and procedures for evaluating and

meeting the needs of these groups were formulated in 1942, but most of the job still remains to be done.

The surveys which have been completed indicate that in many instances the urgent need is not for more physicians, or not only physicians, but rather for hospitals, nurses, or public health services. In a considerable number of areas the local medical societies in cooperation with public health departments and housing and welfare groups have been able to meet the needs for physicians either by having the doctors in the community or in neighboring communities give specific amounts of time to the shortage area or by inducing other physicians to move into the area. Reports from the states indicate that more than 900 physicians have taken positions in war industries or moved into "shortage areas" during the past year and that approximately two-thirds of these moves have been the result of efforts of State or local Procurement and Assignment Chairmen of Committees. Similar methods doubtlessly can and will meet these needs in many other communities.

Some of the "boom town" communities, on the other hand, need considerable numbers of physicians as well as hospital beds, nurses, and other health services. Although the ratio of one doctor to 1500 population has been utilized by the Procurement and Assignment Service for planning purposes as the over-all number of physicians required to provide essential medical services to the civilian population, in shortage areas, a ratio of one to 3,000 has been accepted as the coverage beyond which the situation would be considered critical.

The responsibility for formulating plans to meet these needs has been placed primarily upon the Procurement and Assignment Service and the state and local medical societies. Most of the residents of these areas are earning good incomes and should be able to support physicians on a private practice basis. If it is necessary in special situations to provide partial subsidy to a physician for a limited period of time to enable him to move into such an area and establish himself in practice, funds for such subsidy may be requested from the United States Public Health Service. In some areas pre-payment plans for medical services under the supervision of the state medical society are meeting the need. In rare instances it may be necessary to assign an officer of the United States Public Health Service to practice temporarily in the area. Such an assignment, however, will be made only as a last resort and upon the joint recommendation of the Procurement and Assignment Service and the United States Public Health Service.

In meeting these situations the medical profession is faced with a new responsibility. Medi-

cal societies have always been concerned with keeping their members abreast of new development and progress in medicine and with the maintenance of high standards of ethics and practice among their members. Never before have they had reason to feel responsibility for the availability or adequacy of medical care for the general population. The laws of supply and demand have largely taken care of that. Now, however, the war has given rise to a new problem of medical care which must be met. The physicians of this country are given the opportunity of meeting these needs in the way that one deems best. We sincerely hope and believe that they will be able to meet this challenge.

CONCLUSION

As the representative of the Directing Board of the Procurement and Assignment Service, I welcome the opportunity this occasion has provided to briefly summarize these major problems which confront each and everyone of us in the medical profession in the critical times remaining before our country can emerge victorious in the titanic struggle in which we are engaged. In meeting such responsibilities, the medical profession has always done its full share, and we are confident that, come what may, the physicians of this country can be depended upon to do their share and more in meeting their problems and responsibilities.

Dietary Essentials In Diabetes

1. Energy-Producing Foods (25 to 70 cal. per Kg.)*	(a) Carbohydrates (100 to 200 Gm.)	Provide enough to maintain normal stores in liver and muscle. Carbohydrate provides glycogen to protect the liver. Average about 40%.
	(b) Proteins (1 to 3 Gm. per Kg.)*	Provide enough to maintain nitrogen balance and permit normal growth and repair of tissues. Average 1 Gm. per Kg. of body weight (adult), 15%.
	(c) Fats (60 to 125 Gm.)	Fats serve primarily as reserve and secondary as available fuel. The optimum requirement has not been definitely determined. About 100 Gm. daily is normal. Average about 45%.
2. Minerals	1 pint of milk 1 egg 1 serving (90 to 120 Gm.) meat 3 teaspoonfuls (15 Gm.) butter 4 servings whole grain bread or cereal	About 1,200 calories. (Any diet containing less than these quantities of protective foods should be fortified with vitamin supplements.)
3. Vitamins	2 servings vegetable (other than potato) 1 raw 2 servings fruit (1 raw)	

*High values for young, growing, active persons. Low for old, sedentary patients.

—Franklin B. Peck, M.D., Indianapolis; Jour., Ind. S.M.A., Vol. 36, No. 7, July, 1943.

Abdominal Versus Vaginal Hysterectomy*

JOSEPH L. DECOURCY, M.D.

IN DISCUSSING abdominal pan-hysterectomy versus vaginal hysterectomy, I realize that

I am dealing with a still highly controversial subject, even a casual perusal of the several reports appearing in the medical literature on this phase of gynecological surgery will reveal not only a wide divergence of opinion with regard to the most appropriate operation but also a marked variation in mortality rates and post-operative complications for the same type of operation.

On the basis of results obtained at the Good Samaritan Hospital, I believe that, when performed by a skillful surgeon, abdominal panhysterectomy is the operation of choice in the large majority of cases. I do not, however, hesitate to employ supravaginal hysterectomy or even vaginal hysterectomy when conditions indicate that such procedures will be more advantageous or yield better results.

My viewpoint is based on a study of 510 hysterectomies, all performed by me at the Good Samaritan Hospital. Of this series, 350 consecutive abdominal panhysterectomies were performed without a single death. During this same period 140 supravaginal hysterectomies were performed with an incidence of two deaths. Vaginal hysterectomy was carried out in 20 instances during this period with one death.

INDIVIDUAL CONSIDERATION OF PATIENTS

All patients are considered individually and such factors as age, physical condition, extent of pathology and the like are taken into consideration before deciding on the type of hysterectomy to be employed. Abdominal panhysterectomies were performed wherever there was a laceration or erosion of the cervix with complicating uterine pathology. Naturally, we feel that this procedure is definitely indicated in any case in which there is evidence or suspicion of malignancy.

Hence I fully agree with Martzloff's¹ recent observation that "there can be little question of the desirability of panhysterectomy as prophylaxis against subsequent cancerous change in a residual cervical stump when the operation is used as an elective procedure without additional hazard to the patient."

We perform supravaginal hysterectomy in the presence of extensive inflammatory disease of the adnexa, endometriosis and similar conditions. In cases where the patient was a poor surgical

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risk for the more radical operation because of hemorrhage or other complications, the supravaginal technic was employed in preference to panhysterectomy. Cauterization of the cervix was practiced in the cases undergoing supravaginal hysterectomy. Perineorrhaphy was frequently performed in conjunction with both panhysterectomies and supravaginal hysterectomies.

Even though the indications for vaginal hysterectomy have been broadened by some workers to include a variety of conditions, we have limited the use of this procedure and employ it only in cases of complete procidentia uteri.

Many arguments for vaginal hysterectomy have been advanced from time to time. Usually these boil down to the claims of greater rapidity of operation, lowered mortality and lessened shock.

This, however, has not been my experience. One cannot overlook the fact that vaginal hysterectomy by its very nature must be largely dependent upon the sense of touch rather than the sense of sight. Hence there is definitely increased possibility of injury to the bladder, ureters and intestine. The presence of adhesions and coexisting inflammatory disease of the tubes or ovaries also form complicating and contraindicating elements. The difficulty of correcting intra-abdominal lesions via the vaginal canal must also be taken into consideration.

The factor of satisfactory hemostasis in vaginal hysterectomy as compared to that obtainable with abdominal procedures is likewise a very important matter. This brings up a point that warrants more than passing comment. Recently I have noticed that the clamp technic of vaginal hysterectomy is returning to favor in some localities. This consists of removing the uterus and allowing the clamps to remain in the infundibulopelvic ligaments and uterine arteries for 48 to 72 hours and then removing the clamps without tying the blood vessels. To me this is a very unsurgical procedure. Not only is there grave danger of secondary hemorrhage, but there is also

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Submitted January 25, 1943.

more danger of embolism. Furthermore, when this technic is used, perineorrhaphy cannot be performed properly and adequate support is lacking.

As compared to a properly performed abdominal hysterectomy, the excision of the uterus via the vaginal canal offers no advantages. Indeed, it is my frank opinion that the advantages of abdominal hysterectomy so far exceed those of vaginal hysterectomy as to make the vaginal route almost obsolete except in complete procidentia.

Certainly abdominal hysterectomy is the more surgical procedure. The closure of the vagina can be more accurately performed, the supporting structures can be more accurately approximated, postoperative bleeding is less likely to occur, there is much less crushing and trauma to the tissues and considerably less danger to the adjacent organs. Indeed, it might well be said that the frequent occurrence of adhesions and the presence of complicating tubal and ovarian lesions call for surgical intervention through the abdomen rather than by way of the vagina. The abdominal route likewise more readily permits correction of any intra-abdominal abnormalities that may be present.

Even the time factor does not favor the employment of vaginal hysterectomy. I have found that, if one is accustomed to performing abdominal panhysterectomies despite the greater amount of surgery involved, the time consumed is no greater than that with the vaginal operation.

In view of the technical advantages inherent in the abdominal procedures, their more truly surgical approach as well as the low mortality rate (approximately 0.4 per cent for the combined abdominal panhysterectomies and the supravaginal hysterectomies, obtained in our series of 490 cases), I believe it is quite understandable why we prefer this procedure to the vaginal method. However, I find it difficult to reconcile our complete absence of mortality in 350 consecutive panhysterectomies with the often repeated statement that the operation is a hazardous one from the standpoint of mortality and morbidity. For example, Bland² estimates that the mortality totals in the neighborhood of 5 per cent following total hysterectomy.

I feel that this reputation is undeserved. It is my firm conviction that, when mortality rates are excessively high following abdominal hysterectomies, whether total or subtotal, the fault can often be traced to insufficient consideration of one or more of several factors essential to good surgery. Considered in their broad aspects, these essentials consist of careful selection and individualization of cases, adequate preoperative preparation, skillful aseptic surgery and good postoperative care. Postoperative complications largely depend upon what happens on the operating table. Atraumatic technic and the avoidance of

unnecessary manipulation of the abdominal contents are important elements in reducing surgical shock.

As I³ have pointed out in a previous discussion, the control of postoperative infection lies, to a very large extent, in the hands of the surgeon and his operative assistants. At both the DeCourcy Clinic and the Good Samaritan Hospital, we have been able to lessen materially the incidence of postoperative infection by adherence to four basic, simple principles; namely, (1) avoidance of contact with pus or infected material, (2) gentle handling of tissues, (3) care in the use and tying of sutures and ligatures and (4) reduction of operating time to a minimum consistent with good operative technic.

At this time I do not wish to go into a detailed discussion of the technics employed in abdominal hysterectomy. However, there are two very important points that I wish to bring out in relation to the technic as employed by us and which I believe contribute materially to the excellent results obtained.

The first of these points refers to sterilization of the vagina. We accomplish this by packing the vagina with iodine gauze before making the abdominal incision and removing it from above when the vaginal vault is opened.

The second point is concerned with the use of clamps. In our procedures, the only clamps we employ are on the uterine arteries. The ovarian arteries and round ligaments are tied and clamped only on the side proximal to the uterus. This, we have found, affords less trauma and, moreover, avoids leaving crushed tissues after the operation to become a source of embolism.

SUMMARY

A series of 350 consecutive abdominal panhysterectomies without a death and a series of 140 supravaginal hysterectomies performed during the same period with two deaths indicate that the abdominal methods are highly safe and satisfactory procedures when executed by skilled surgeons.

Considered from the viewpoints of optimal surgical technic, mortality and end-results, abdominal hysterectomy offers many advantages over vaginal hysterectomy and should be preferred to the vaginal procedure except in cases of complete procidentia.

The use of iodine gauze in the vagina as described and avoidance of the excessive employment of clamps contribute materially to optimal results.

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Office Proctology

PAUL W. PALMER, A.B., M.D.

MANY rectal procedures can be done satisfactorily in the office. Certainly the foregoing is not a new thought but it might be well to again call attention to it at this time when there is a greatly increased demand for surgical beds, especially in urban centers. It seems hardly fair for minor cases to be occupying space that is much more urgently needed for abdominal or other major cases.

Probably 90 per cent of the operations done on the rectum and anus are definitely not of a major character and can be performed under local anesthesia. In the hospital no matter how much fol-de-rol surrounds the proceedings—the sterile drapes, the sterile towels, gowns, caps, masks and other properties, the inescapable fact remains that the operation at hand is apt to be trivial as compared to an abdominal section. By trivial I mean slight as to the degree of risk involved. I do not mean that these operations are lightly regarded by the patient; on the contrary, a rectal operation is highly important in the life of anyone who may be faced with it. Nevertheless, in the great majority of cases, hospitalization is not strictly a necessity.

SPECIAL TRAINING AND EXPERIENCE NECESSARY

It is my opinion that special training and experience are necessary to anyone undertaking surgery of the anus and rectum. I have observed over a period of some years that general surgeons are not good proctologists though no doubt there are those who feel that they can do rectal work better than any proctologist. However, I imagine that a few of them occasionally wonder why ischio-rectal abscesses recur following incision and drainage. I certainly have no quarrel with my surgical colleagues but I have noticed a certain attitude as if the surgeon might be regarding the proctologist perhaps as the osteopath regards the chiropractor, one who might possibly be on the fringe but definitely not inside the charmed circle.

I do not know of any general surgeon doing office proctology. Most of them accept rectal cases but these cases are sent in to the hospital for surgery under general anesthesia. A proctologist, on the other hand, sorts these cases out. He is supposed to do better work in his chosen field and this means the exercise of superior judgment, the employment of better technique, and more meticulous attention to after-

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care. The net result should be an easier time and a better result for the patient.

Proctology is a specialty in which there are obscure conditions not readily recognized by those not specially trained in rectal work. I offer this as a sort of cautionary prelude. Cases selected for office surgery should be carefully scrutinized. One must be certain that the operation contemplated can be satisfactorily and safely carried out on the particular patient under consideration.

Once an operation has been performed on the anus we can be reasonably safe in assuming that, other things being equal, our patient will make an uneventful recovery. Experience has taught us that he must have intelligent and adequate aftercare if a good result is to be obtained. But immediately after operation the patient becomes a nursing problem. So if he can be safely and comfortably taken from the office to his home and if he can be adequately cared for at home for the following three or four days, there is no good reason why such operations should not be done in the office. The saving to the patient should be considerable but perhaps it is equally important that a hospital bed is released or conserved for someone who may need it much more urgently.

HOSPITALIZATION

Not the least of the considerations involved is the cost of hospitalization. The cost of a four day stay, which is about the minimum time expended on a hemorrhoidectomy, amounts to between thirty-five and fifty dollars depending on how elaborate are the accommodations. This of course includes the item labeled "Laboratory Fees," a more or less mysterious entry to the patient. The routine blood count and urinalysis are of little or no benefit to the proctologist in his treatment of that case. The charge therefore represents an involuntary contribution to help out on the laboratory overhead.

If one is to do office surgery he must be sure

that his office is adequate for it. This applies not only to the physical equipment but also to the assistants.

One must be able to estimate accurately the nature and extent of the condition with which he is to deal. Next he must be able to smell out, so to speak, those patients who will be amenable to office surgery. He must be able to rule out the neurotics, the unstable, the hot-house plants who feel that their personal operation must be accompanied by the added glamor of the hospital operating room so that they can prove themselves bigger and better martyrs than some acquaintance who only had a minor operation in an office.

The temperament and desires of the patient are certainly of importance. I think it is a mistake to talk anyone into an office operation when he has already made up his mind that the hospital is the place for him. Conversely, never let him or his physician talk you into doing an operation in the office unless you well know that it is a feasible project. When considering the average case a pretty good rule to go by is this—if a case cannot be satisfactorily done under local anesthesia, do not do it in the office.

What operations can be done in the office? Obviously a number of factors enter into consideration. A few have been mentioned. Following is a list of procedures that I have done many times in my office under local anesthesia: (1) Excision of thrombotic hemorrhoids; (2) Removal of integumentary hemorrhoids; (3) Ligation and removal of internal hemorrhoids; (4) Excision of anal fissures; (5) Operations for the radical cure of anal fistulae, complete and incomplete; (6) Incision and drainage of anal crypts; (7) Removal of hypertrophied papillae; (8) Removal of polyps, anal and rectal; (9) Electrocoagulation of malignancies; (10) Implantation of radium.

PREOPERATIVE PREPARATION

It is difficult to make a hard and fast rule but generally speaking, procedures that should be done only in a hospital include operations for the radical cure of prolapsus of the rectum, ligature operations for the removal of big interno-external hemorrhoids and operations on complicated, multiple or deep fistulae.

A factor that will militate against success if not given plenty of attention is the matter of preoperative preparation. It has been my custom to have a definite plan on this. Assume that a time for surgery has been agreed upon. The patient is advised that it will be a distinct advantage if he skips two days in bowel movement following operation. Therefore, the night before surgery he should take a laxative. If he has some favorite preparation that gives him good results he is instructed to use it. If not, I

instruct him to take two teaspoonfuls of compound licorice powder. To allay the nervous apprehension, barbiturates are provided, a suitable dose to be taken the night before and repeated an hour before the time set for operation. A soda bicarbonate enema should be taken at least two hours before the time set for operation.

I like to operate with the patient in the left lateral position; i.e., with left leg extended and the right leg drawn up with perhaps a pillow under the hips. This position is relaxing and comfortable, a fact that is important. One great advantage of the office is that the surroundings are much less terrifying to the apprehensive patient. He is not wheeled into an array of gleaming white pans, tables, floors, walls and ceilings.

CHOICE OF ANESTHETIC

He is asked to remove only such clothing as will enable us to adequately expose the part. If he feels better with his shirt off, off it comes. If he wants to smoke a cigarette, a suitable ashtray is provided. A small wad of cotton is placed on the perineum and packed into the crotch to absorb bleeding and protect the patient's clothing. A drape is placed loosely over the legs and usually a towel or two back of the knees. In the case of a female patient these details are left to my office assistant, a graduate nurse.

My choice of anesthesia is Novocaine, 1 per cent solution, administered by infiltration into the perianal tissues. It is not my purpose to go into the subject of technique. The manner of anesthetizing the field for operation has been minutely described in various textbooks. Caudal or sacral block is really the anesthetic of choice and I use it almost routinely in the hospital. Its one drawback is the fact that postoperative retention is likely to occur. This complication is not likely to follow anesthesia which has been administered regionally by infiltration.

The *bete noir* of office surgery is postoperative hemorrhage. Every possible precaution must be taken to obviate this most embarrassing thing. I use #0 catgut freely in tying off little bleeders. The actual cautery or electrocoagulation may be useful in the control of oozing. Incidentally it is my opinion that this is the only use to which the actual cautery should be put around the anus.

When the operation has been completed I usually inject a few minims of one of the oily benzocaine preparations into the perianal tissues. There is no question in my mind but that there is less pain.

I use a lot of Nupercainal ointment. Following surgery, a wick of gauze is impregnated with a quantity sufficient to make a well lubricated pack.

This is inserted in the anus. Let it be distinctly understood that this is not to be of a sufficient size to make it a plug. Its only function is to provide an additional anodyne and possibly to control minor oozing from capillary vessels. The big rectal "whistles" and plugs that are wadded into unconscious patients are an abomination and should never be used.

It was formerly my practice to keep patients in my office for several hours following surgery. They were placed in bed in a suitable recovery room, given morphine by hypodermic, and sent home at the close of the day. This was not entirely satisfactory for several reasons. The chief one was that the morphine was apt to send the patient off to sleep or at least cause such extreme drowsiness that it was difficult to get him into the family car or into a taxi. Some time ago I adopted the plan of sending the patient home immediately after operation. I keep him long enough to satisfy myself that there is no bleeding. If I think that morphine is indicated or will be indicated, it is administered.

POSTOPERATIVE CARE

Before leaving the office the patient is provided with a prescription for codeine. This is described as "insurance" to him. I tell him to send around to the drug store for it only if he has uncontrollable pain. He is instructed to go home and to lie down for the balance of the day or for the next two or three days, depending on the extent of the surgery.

I make a call at his home on the following day and on the second and third day if need be. The gauze packing is removed on the occasion of the first call. No new packing is reinserted. The perineal binder is removed and discarded. A pledget of cotton is placed in the fold of the buttocks next to the anus and this is all that is used thereafter in the way of a dressing. Nupercainal ointment or some other good anodyne ointment is carried up into the anus on a cotton-tipped applicator. This is a daily procedure for the next three or four days.

The average rectal case should have a bowel movement no later and no earlier than the morning of the third day. The patient is instructed in the matter of high caloric, low residue diet so that whatever he eats for the first and second day should be almost wholly digested. He is instructed to take mineral oil, usually a tablespoonful morning and night, beginning immediately after operation and continuing for the next few days, to insure soft mushy stools.

He is further instructed that he may sit or lie in any position and have the use of the toilet. He should not strain. The wisp of gauze which was placed in the anus at the conclusion of the operation may give him a desire to defecate. This

mechanism should be explained so that the false impulse will be understood.

I always explain to my patients that they may expect to see some slight bleeding in the stools for the next few days because we do not close the wounds up tight.

Three house calls usually suffice for the average hemorrhoidectomy. Following this the patient is up and dressed and going about. The remainder of the aftercare can be carried on at the office.

115 S. Grant Ave.

Functional Upset of the Skin

I will give you the example of disseminated neurodermite (Vidal). These cases have a skin that reacts in a characteristic way on any part of their skins if frictional trauma is there applied. Their complaint includes one of general skin irritability, coupled with an over active nervous habitus. A careful survey of their living habits will often bring out defective mineral nutrition and psychic conflicts. If we occlude a single lesion from injury for a sufficient time, it recovers. We then may call it a "contact dermatitis." It is true that it responds to contact, but the skin has an inherent irritability that a normal skin does not have. We can then conclude that there is a disturbance of the function of this skin that permits an abnormal reaction to physical damage. If we subscribe to the nervous origin of this condition, we are no better off. We had better ask, "Why is this patient nervous?" "What constitutes nervous tension?" "Why do we have the neurotic?" The psychiatrist may answer the above to his own satisfaction, but is he entirely right or has he, too, neglected the chemistry and physiology of the organism that must be maintained in balance? "*Mens sana in corpore sano*" can become more than a schoolboy phrase if we apply it to medical practice. A careful dietetic survey will commonly show these patients to be restaurant diners or lunchpail eaters; if they are women they don't drink milk, and if they are men they consume substantial meat and potato meals without salads, fresh vegetables, fruit or other refinements. Neither eats much fresh fruit. Neither one has a proper mineral or vitamin intake.

These cases must be restored to normal balance in eating, mineral intake must be increased, and the necessary vitamin content supplied for their utilization, if we are to get more than the symptomatic relief provided by ointments, X-ray and protective dressings. I have found it good practice to provide an added calcium and Vitamin D ration at the start of treatment.—Merlin T.-R. Maynard, M.D., San Jose; Cal. and Western Med., Vol. 58, No. 6, June, 1943.

Multiple Congenital Anomalies With Intestinal Obstruction

DONALD M. GLOVER, M.D. and JUSTIN A. GARVIN, M.D.

INTESTINAL obstruction due to congenital anomalies is not common. The infrequency of this condition may be judged from the fact that Glover and Hamann,¹ on reviewing the records of three of Cleveland's largest hospitals for the 17 year period prior to 1940, found only 18 cases or about one case per year.

The early recognition of such conditions is all important because some of them are then amenable to surgical cure. To call attention to this is the object of the following case report.

Case: On the 11th of February, 1941, an apparently healthy white boy weighing 7 lbs., 15 oz. was born at St. Luke's Hospital. After 36 hours he received an evaporated milk formula 2 oz. every four hours until an adequate amount of breast milk was established at four days. From the first day on he vomited water and milk projectily, a few to 30 minutes after its ingestion. The vomitus was at times greenish and contained considerable mucus.

The stool record reads as follows: 1st day: 3 meconium stools; 2nd to 5th day: 1 to 2 yellow or brown stools; 6th day: 0 stools; 7th day: 0 stools: On the 7th day his weight was 6 lbs., 9 oz., a loss of 17 per cent of his birth weight. Atropin sulfate 1:2000 solution was given in drop doses before feeding without benefit.

When seen by us at this time the infant was markedly dehydrated, rather apathetic and his cry on being disturbed was querulous. The skin and mucous membranes showed moderate icterus and the abdomen was scaphoid and showed distasis of the recti. The ingestion of 2 ounces of water produced visible gastric peristalsis terminating in projectile vomiting. Rectal examination revealed a very small amount of fecal material. A fluoroscopic examination of the gastrointestinal tract was made by Dr. R. P. Meader, whose report follows:

"At the beginning of the fluoroscopic examination there was no evidence of any marked distention of the stomach. Barium given by mouth showed some tendency toward narrowing at the distal end of the oesophagus with dilatation of the oesophagus above this, although the barium went through immediately and continuously. The outline of the stomach was regular. The tone of the stomach was good. There was very little peristalsis at the time of the first examination and no evidence of emptying during the fluoroscopic examination, which lasted about 10 minutes.

When the patient was returned about one-half hour later, it was reported that he had vomited some of the barium meal. There was still no evidence of emptying. Films taken following this fluoroscopic examination, showed air in a dilated duodenal cap and loop or partial loop. Some peristalsis was noted during the

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fluoroscopic examination at this time. The patient was returned one hour later (one and one-half hours after the administration of the barium). At this time there was evidence of barium filling the duodenum. The duodenal loop was not clearly visualized, however.

At this time barium was given by rectum and was seen to dilate the colon normally to the region of the splenic flexure. The barium could not be made to pass any further than the splenic flexure because when filled this far the patient would evacuate.

Conclusion: It is apparent from this study that there is at least a partial obstruction in the region of the duodenal loop, possibly at the ligament of Treitz. Certainly this is not a case of pyloric obstruction. We are unable to be sure of the significance of the incomplete filling of the colon and cannot tell whether there is a non-rotation of the colon from this examination."

A diagnosis of high intestinal obstruction below the level of the common bile duct was made and the infant was operated on the same day by one of us (D.M.G.) The operative report reads as follows:

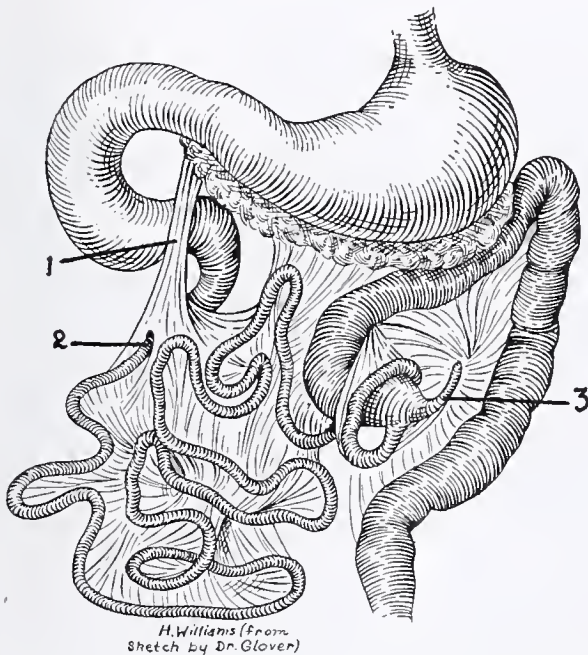
2-19-41: Baby boy M.; abdominal wall was prepared with soap and water, and alcohol. A short upper right transverse incision was made with $\frac{1}{4}$ per cent procaine anesthesia. A few ccs. of free bloody fluid was evacuated upon opening the peritoneum. An enormously distended stomach and duodenum were immediately exposed. The duodenum was anterior to the superior mesenteric artery and the colon was incompletely rotated, the caecum being in midabdomen and being the seat of a clockwise partial volvulus. Over the dilated distal duodenum extended a mass of adhesion bands terminating in the small bowel mesentery which partially constricted the duodenum. Two or three cms. beyond the duodeno-jejunal junction the jejunum went through a small opening in the mesentery. The combination of these two points of stenosis caused complete obstruction, and distal to the latter the small intestine was about 0.5 cms. in diameter

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Submitted February 15, 1943.

throughout its length. In the area of partial volvulus the color of the small intestine was somewhat impaired, but this did not contribute to the obstruction which was complete in the upper jejunum. The mesentery and constricting mesentery were severed and the jejunum immediately dilated and began to fill with fluid content. The partial volvulus was easily reduced, but no effort was made to fix the caecum. The appendix was not removed.

The abdomen was closed using 000 chromic catgut to the peritoneum and posterior sheath, double-o chromic catgut to rectus muscle and anterior sheath. Subcuticular 8-0 Kaldemic reinforced by interrupted fine dermal stay sutures completed the closure. The baby was in good condition throughout.



1. Mensenteric band across distal duodenum.
2. First part of jejunum through hole in root of mesentery.
3. Volvulus of unrotated caecum.

The postoperative course was uneventful except for some regurgitation of the feeding during the first four days. Food was given by gavage for nine days then a Breck feeder substituted for a few days until the baby was able to nurse. Breast milk was available in almost sufficient amounts, being complemented by Similac.

At time of discharge, 15 days postoperative, the child was 22 days old and weighed 8 lbs., 4½ oz., which was 5½ oz. over birth weight and was progressing normally.

At the age of 15 months he had grown and developed in normal fashion.

SUMMARY AND CONCLUSION

A case of intestinal obstruction in a newborn is reported in which were found three congenital anomalies: (1) constricting adhesion bands.

(2) a loop of jejunum through a hole in the mesentery, (3) partial volvulus of the unrotated caecum, any one of which could have caused obstruction.

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REFERENCE

1. Glover, Donald M. and Hamann, Carl F., Intestinal Obstruction in the New Born Due to Congenital Anomalies. Ohio State M.J., 36:833-840, Aug. 1940.

Strophantin In Coronary Disease

Edens recommended strophantin for angina pectoris saying that "this disease has lost much of its terror since it can be met by strophantin." He considers the weakness of the heart with concomitant insufficient coronary circulation as a decisive point for the etiology of angina pectoris. But there are other theoretical possibilities too which may support Edens' conception. Wenkebach always felt that angina pectoris is frequently the result of a distention of the base of the aorta; a "damming-up pain." He mentioned experiments in this connection: adrenalin dilates the coronary arteries in animals and probably in human beings, yet it causes angina pectoris. In contrast, pitressin causes an outspoken narrowing of the coronaries in dogs; but they do not show any symptoms of pain. On the basis of this theory, the usefulness of strophantin in angina pectoris would be very understandable. There is no doubt but that strophantin is helpful in many cases of angina pectoris. The dose should be small (0.15 mg. or 0.2 mg.). The effect seems to be best in patients with sclerotic narrowing of the arteries; it is poorer when nervous spastic moments are predominant. It should be tried if the usual treatment, with the regulation of exercise, rest and vasodilating medicines, is of only limited success. Some patients with angina pectoris will experience an increase of spells after strophantin because the narrowing of the coronary arteries does not permit sufficient blood circulation for the increased activity of the heart. This forces discontinuance of this therapy. Some authors pointed out that this may happen, especially in cases of syphilitic etiology with its special localization.

Strophantin is surely not the only answer for such a many-sided disease as coronary insufficiency. One should always keep in mind that there is probably no disease in which overactivity will hurt more. The conservative management, which gives good results in many cases, should always be the basis of the treatment. The addition of strophantin, however, with its steadying influence in the heart, is valuable because it attacks the disturbance from a different and important angle.—Robert Uhlmann, M.D., Kansas City, Mo.; Jour. Mo. S.M.A., Vol. 40, No. 7, July, 1943.

The sketch from which the accompanying illustration was drawn was made by Dr. Glover while on a long ocean voyage and had this remark appended: "I find that attempting to make drawings on my lap in a swaying boat is not too successful."

Pathologic Interpretation of Curettings

LESTER J. BOSSERT, M.D.

IN 1850, Recamier designed the uterine curette. This instrument paved the way for a more complete study of the endometrium. Some years later, through the investigations of Brenecke, Schmal and Cullen, it was proved rather conclusively that hyperplastic endometritis was not an inflammatory process. The bacteriologic evidence for this conclusion was furnished by Doederlein, Pfannenstiel, Bumm, and Menge. Prior to the time of these workers, inflammation of the uterine mucosa was regarded to be the underlying cause for most all types of abnormal endometrial bleeding. The next big step forward was made by Hitschman and Adler, who described the cyclical changes of the normal endometrium. The work was corroborated by Schroeder, who also correlated the ovarian and endometrial cycles. This takes us up to the year 1912 and since then many other observations have been made by Bartelmez, Novak, Robert Meyer, Burch, Wifred Shaw, Traut, and others.

A curettage is done most often as a diagnostic procedure to determine a cause of abnormal uterine bleeding of one form or another. Most of us are aware of the fact that abnormal uterine bleeding can occur in the presence of an apparently normal endometrium. This endometrium is either in the proliferative or secretory phase. The former is initiated by the follicular hormone of the ovary and is characterized by the following: The stromal cells are oval and the glands are elongated and slightly tortuous. The epithelium of the glands is thick, columnar, and deeply staining. Mitoses are present and the cells contain no glycogen (Fig. 1). The secretory phase is brought about by the corpus luteum hormone, principally, and to a lesser extent by the follicular. It is characterized by round and polyhedral stromal cells with some edema and leukocytic infiltration and markedly tortuous glands. The epithelium of the glands is one cell layer in thickness with the nucleus near the basement membrane. They take a light stain. Mitoses are absent and the cells are laden with glycogen (Fig. 2). In these patients, obviously, the endometrium is not at fault. Some of the causes of the bleeding are an overactivity or deficiency of ovarian function, hypothyroidism, ovulation, and some form of organic pelvic disease.

Pankow (1924) and more recently Traut (1935)

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, April 28-30, 1942.

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brought two closely related lesions to our attention. The better understood of the two is irregular shedding. In this disease the stroma is shrunken and composed of many deeply basophilic spindle-shaped nuclei and collapsed star-shaped glands lined with secretory cells. The cause is not known. A weak and prolonged corpus luteum effect has been suggested. However, a complete cure generally follows a thorough curettage. So the disturbance might be the result of a local endometrial deficiency. The second entity is irregular ripening. This lesion presents a patchy distribution of secretory and proliferative activity (Fig. 3). Again, the mechanism is unknown but, it is believed to be due to a quantitative imbalance of the ovarian hormones.

Hyperplasia of the endometrium is the best understood type of "functional uterine bleeding". The dense cellular stroma is made up of spindle-shaped cells. The glands are numerous, are arranged in a disorderly manner, and have a great variation in their size and shape (Fig. 4). The lesion is brought about by a prolonged and unopposed estrin effect with a complete absence of the progestin influence. Ovulation does not take place. The ovaries may be slightly enlarged, contain from a few to many follicular cysts and no corpora lutea. Granulosa cell tumors of the ovary are also capable of producing hyperplasia.

Endometrial polypi are also encountered. Unfortunately, the small ones are so broken up with the rest of the material that recognition of them is impossible. The larger ones are readily recognized. They are of three types. The first is made up of functional endometrium which responds to the ovarian hormones in a normal way. The second is made up of non-functioning endometrium which appears as a focal area of hyperplasia. The crowding of the glands in such a polyp can easily be mistaken for an adenocarcinoma. The third, the adenomyomatous type, is the least common and is composed of the usual endometrial elements



FIG. No. 1
Normal Proliferative Endometrium.

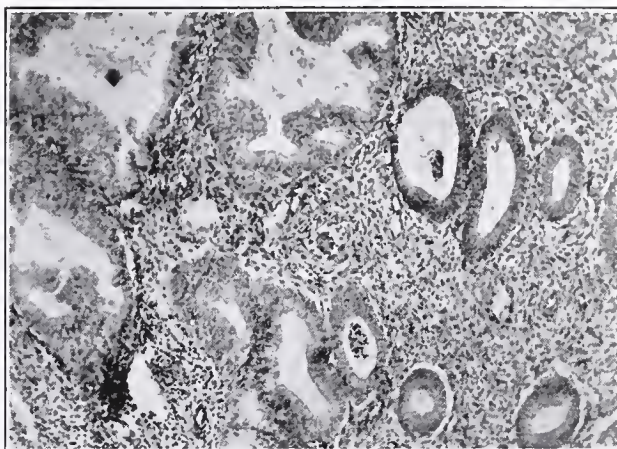


FIG. No. 3
Irregular Ripening of the Endometrium.

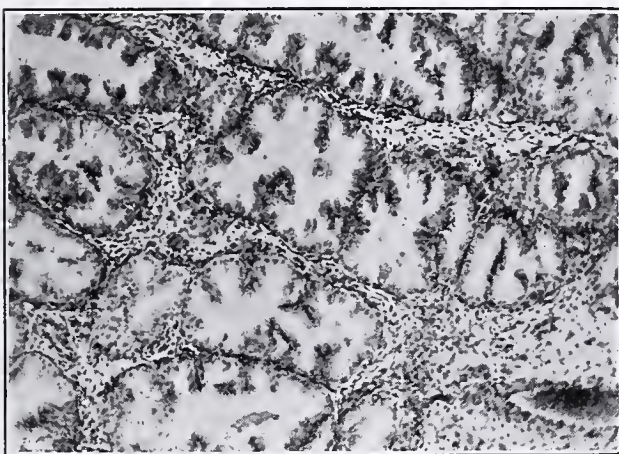


FIG. No. 2
Normal Secretory Endometrium.

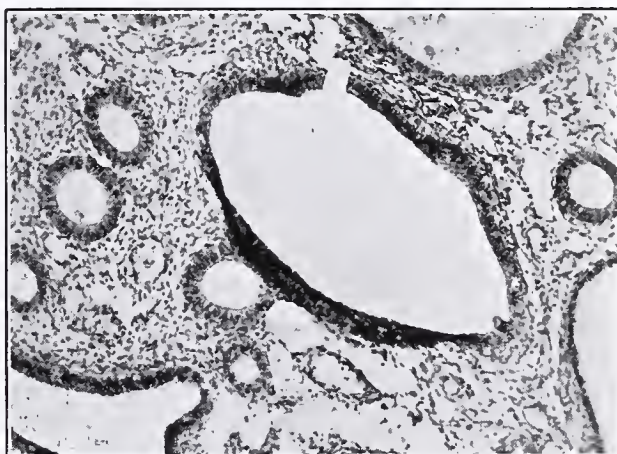


FIG. No. 4
Hyperplasia of the Endometrium.

embedded in muscle tissue. The possibility of a malignant degeneration must always be kept in mind during the study of these tumors.

Acute endometritis is easily diagnosed by the presence of leukocytes in the stroma and if severe enough by exudate in the lumina of the glands. One should not be misled, however, by the appearance of a very late secretory or menstruating endometrium both of which also have leukocytic invasion that is normal. The acute inflammation is almost always associated with some other lesion, such as twisted endometrial polyp, sloughing submucous fibroid, recent instrumentation of the cervix or uterine cavity, gonorrheal infection of the lower tract, and retained products of conception. The diagnosis of primary chronic non specific endometritis is uncommon. It is based upon the same criteria which are applied to chronic inflammation in general. These criteria are round cell and plasma cell infiltration, fibroblast formation, and new blood vessels. A careful search for a possible cause of the endometritis should always be made. In particular, retained products of conception and an unsuspected tuberculosis must be ruled out first. Tuberculous endometritis is most often secondary to a tuberculous salpingitis. Should the

curettings reveal tuberculosis, one is justified in assuming that the tubes are likewise involved even though it is difficult to demonstrate tubal disease.

Early adenocarcinoma of the endometrium is often discovered by a preliminary curettage. The curettings reveal alterations in the glandular pattern and individual cell changes. The tumor is conveniently divided into three types: 1. Adenoma malignum, as you would expect, is the least malignant of the three and is extremely well differentiated. The changes are marked in the glandular pattern which has a fish worm like appearance. 2. The well developed adenocarcinoma is not difficult to identify and is graded pathologically according to the degree of differentiation, 3. The adenoacanthoma is distinguished by the squamous metaplasia which accompanies the carcinoma.

The final group of lesions are those associated with pregnancy. The most common of these are retained chorionic villi and decidua, separately or together, with or without infection. The presence of chorionic villi is absolute evidence of a previous pregnancy in the uterus. They may be well preserved and easily recognized (Fig. 5). More often, they have undergone extensive hyalinization which renders them difficult to dis-

tinguish from organic thrombi. Under such circumstances the villus is identified by the degenerated epithelial covering and by its little or entirely lacking eosin stain. Decidual cells are of maternal origin and are simulated in some instances by the stromal cells of a normal late secretory endometrium. Sheets of typical decidua suggest a pregnancy very strongly. They may be

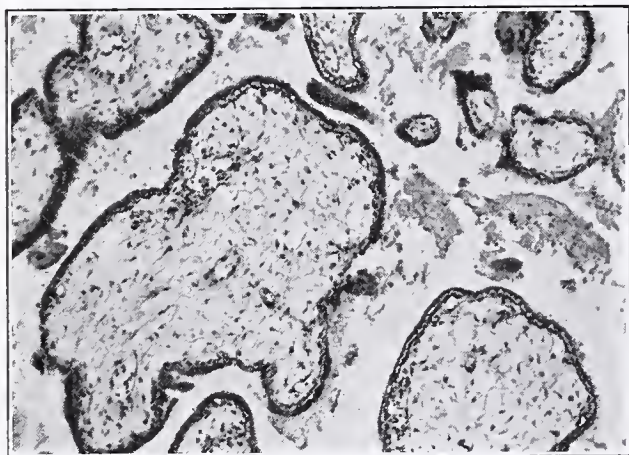


FIG. No. 5
Well Preserved Chorionic Villi.

present with an intra-uterine as well as extra-uterine pregnancy. The recovery of them alone is sometimes an aid in establishing a diagnosis of an extra-uterine gestation (Fig. 6). Occasionally, after a pregnancy, particularly an abortion, a condition arises which has been variously known as a syncytial endometritis or a syncytoma. There is a marked infiltration of syn-

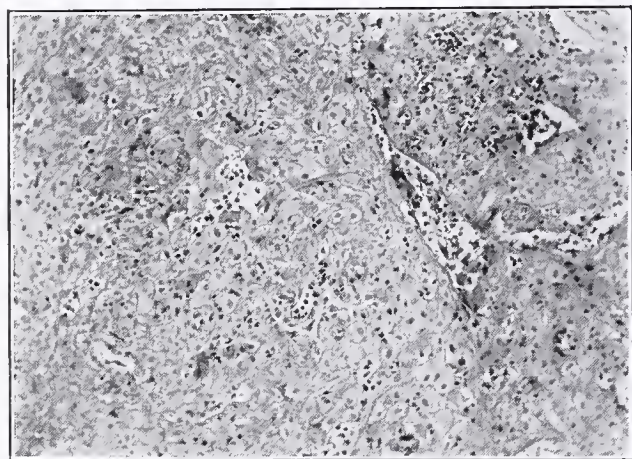


FIG. No. 6
Decidua Tubal Pregnancy.

cytial cells along with an inflammatory reaction. The lesion is very often misinterpreted for a chorio-epithelioma.

Hydropic degeneration of placental villi which occurs in a hydatid mole is quite obvious. However, it is very important to study carefully the activity of the trophoblastic epithelium for evidence of malignant change. Chorio-epithelioma is a difficult diagnosis to make from curettage

material. With the absence of villi and the presence of pronounced anaplasia of trophoblastic cells there is little doubt that a cancer is present. However, it must be remembered that vascular and myometrial invasion can hardly be determined from the curettings. Furthermore, some chorio-epitheliomas develop beneath the endometrial surface. So, a negative report of curettage material would not completely rule out the presence of the tumor.

CONCLUSIONS

In conclusion, there are two points which should be stressed. 1. With the exception of a few diseases curettage is resorted to for diagnostic purposes. In other words, the procedure is not of such therapeutic value as was formerly believed. Therefore, the treatment of the patient does not end by performing a D. and C. 2. All material obtained by curettage should always be carefully examined histologically. The correct interpretation of curettings is of considerable value both in a positive and negative way, and will aid materially in the subsequent management of the patient.

Breakdown in Early Tuberculosis

Of the nearly 50 per cent of the minimal cases in the Henry Phipps Clinic, Philadelphia, that showed progression of the disease, 86 per cent developed extension within the first year, the remainder within three years. Serial X-ray studies enable the clinician to determine at the earliest time those cases in which the original estimate of the lesion's stability was faulty.

Following the diagnosis a strong rapport between physician, nurse and patient is essential. The psychological reactions of the patient to his disease and its treatment depend on the confidence he has in his medical advisers. It is difficult to convince a symptomless patient, often one who was found by survey means and not by his own seeking, to accept such "drastic" treatment as absolute bed rest. He often scoffs at the diagnosis, claims to feel well, and refuses to cooperate.

People in contact with sputum-positive tuberculosis may submit to examination merely for the comfort of being told they are free of the disease. When their hopes are dashed and they are confronted with their own unsuspected trouble, they may turn antagonistic and refuse to accept advice.

Again, society has done little to solve the problem of the family head who must leave behind a situation of destitution for the ones he loves by accepting treatment which must necessarily be a prolonged hospitalization.—Samuel C. Stein, M.D., *Pub. Health Nursing*, March, 1943.

Importance of Immunization of the Civilian Population In War Time

JOHN A. TOOMEY, M.D.

NATION will arise against nation; kingdom against kingdom. The most dreaded of the destroying horsemen—the Pale horse with its rider, Death—the one causing the most damage, the one killing most people will then spread plague and pestilence.

The youth of our land is being transplanted. Individuals from many communities are gathered together and exposed to each other's different oral and nasal flora. Some organisms find seed in virgin soil and start explosive outbreaks—new epidemics. Some organisms enhance their virulence with repeated passage and become so dangerous as to initiate epidemics which spread to the civilian population.

The bastion of civilian health will be breeched unless we keep our population protected against the acute infections. This can best be done if the populace is immunized against those diseases with which there have been sad experiences in the past.

The greatest attention should be given to (1) susceptibles and (2) those afflicted with the common infectious diseases; in brief, the present available active and passive artificial immune procedures should be stressed.

Diseases may be divided into (a) those which must be routinely protected against by active immunity, (b) those that must be protected against by passive immunity, (c) those for which there is some active or passive principle the efficiency of which has not been determined or is doubtful and (d) those which ordinarily would not be considered were it not that the men and women of the armed forces may in other climates become reservoirs of disease and come home as hosts, thereby creating new foci and transmitting diseases which normally would be dismissed from the mind as exotic.

ACTIVE IMMUNITY

Smallpox—Everyone should be protected against smallpox. Active immunity is acquired when a susceptible individual is successfully vaccinated. The objections of civilians should be controlled directly or indirectly by education and quarantine. A stock argument against vaccination is that disease is transmitted by the act. This may have been true when variolation was practiced, but this method has been forbidden by

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law in every civilized country for over 100 years. Although vaccine may not be absolutely sterile, it does not contain any tetanus spores or pathogens.

Persons should be vaccinated as soon as possible after birth after the cord has fallen off, or at least by the end of the third or sixth year. After exposure to smallpox, everyone should be revaccinated whether he has been previously vaccinated or has had a take. Boards of health should be adamant on this point. Where there is objection, vaccination should not be insisted upon, but in times of epidemics all such individuals should be excluded from schools and other public places and quarantined.

The physician is apt to be satisfied and stop if vaccination is followed by a negative reaction. This does not signify a lack of susceptibility but rather an impotent vaccine. The potency of vaccine manufactured by biological laboratories is extremely sensitive to temperature; it should be kept in the freezing compartment of an electric refrigerator or actually on ice—the colder the better. When vaccine is shipped it should be packed in solidified carbon dioxide. It should never be used after the expiration date stamped on the outside of each package. It is prepared in individual capillary tubes, which when broken must be used immediately or discarded. The potency of vaccine from various commercial houses may differ.

Vaccination should be done on a dry skin. The area involved should not be over 1/3" in diameter and should not be rubbed or directly exposed to sunlight for a few hours after vaccination. The way to vaccinate is by the multiple acu-pressure method (multiple pressure method) where a drop of vaccine material is placed on the skin in the area over the insertion of the deltoid muscle and a sharp pointed needle, placed tangential to the tightly stretched skin, is rapidly raised up and down from 10 to 20 times, the body of the needle always being parallel to the arm. In this way, it

Read before a General Session, Ohio State Medical Association, at the Ninety-Seventh Annual Meeting, Columbus, Ohio, March 31, 1943.

presses down each time it reaches the taut skin and makes a small prick in the epidermis. Shields and other dressings should never be used, since they retain moisture and create conditions favorable to secondary infections. Eczematous patients need not be vaccinated in non-epidemic periods until skin lesions are healed, although they too should be vaccinated during epidemics.

A primary vaccinia or take passes through the stages of maculation, papulation, vesiculation and pustulation within three to nine days after the vaccination. Then follows desiccation, scabbing and last, healing of the lesion by the twenty-first day. A person who has some but not sufficient antiviral immunity may develop an accelerated take of vaccinoid reaction which passes through all the stages of a primary take, but more rapidly, i.e., within four to seven days. Some persons successfully vaccinated may retain their immunity and, when revaccinated, will have what is termed a "reaction to immunity", an immediate or accelerated reaction of local redness and induration. Occasionally, a vaccine may be so potent and the patient so lacking in immunity and so susceptible to the vaccine that a positive take with a varioloid condition is produced, accompanied by all the symptoms and signs of mild smallpox. Thus the duration of protection which follows a successful take is variable, although a good take may often afford protection for life.

In the United States and Great Britain, smallpox still occurs epidemically; the latest epidemic was in Ohio and Pennsylvania. In certain European countries where vaccination is compulsory, medical students have to leave the country to see a case.

Diphtheria—Diphtheria can be stopped. We should not relax when we are succeeding. Signs of a more severe type of diphtheria are appearing on the continent and its incidence has increased. This disease waxes and wanes in severity. It often returns more severe than before. What can be done? Immunization should be employed. Does everyone need to be immunized or can susceptibility be determined? This can be done by the Schick test, a most accurate test though not an infallible measure of immunity.

It is unnecessary to do Schick tests on young children before starting to immunize, since the tests will nearly all be positive. Even when a previously immunized child has been exposed to diphtheria and the status of immunity is unknown, Volk and Bunney now recommend another injection of the immunizing antigen (toxoid or alum precipitated toxoid) rather than a Schick test. The use of the Schick test in children is not ruled out absolutely; occasionally we may wish to determine immunity.

Individuals may become sensitized to the ma-

terials in which the diphtheria organisms grow or to the organisms themselves and they will acquire an apparent persistently positive Schick test. A control test should be done to detect this condition.

Schick tests should be read four or five days after they have been given. Pseudo inflammatory reactions which appear 12 to 48 hours after the injection should be ignored. The size of the reaction is no indication of the amount of antitoxin present. An infant may acquire some passive immunity from the mother. Hence, he may be a negative reactor for six to eight months after birth. This immunity is usually lost within the first year.

Three materials are offered for active immunity—toxin, antitoxin, toxoid and alum precipitated toxoid.

The toxoids are stable; they do not deteriorate much; are not destroyed by freezing; are but little affected by heat and unlike toxin antitoxin, never revert and again become toxic. The present tendency in private practice is to learn how to use one material for all types of people.

Toxin antitoxin, toxin underneutralized by horse, goat or sheep antitoxin, is a clear fluid, never cloudy and has been recommended for persons over 10 years of age. It produces immunity too slowly and the individual may become sensitized to animal serums.

Diphtheria toxoid (plain toxoid, Ramon's anatoxine), recommended for children under 10 years of age is a clear fluid. Serum sensitization does not occur with this product.

Alum precipitated toxoid, a preparation gradually supplanting all other diphtheria immunizing agents, is a milky white substance more slowly absorbed, more slowly excreted and immunizes more promptly.

Since adults may be susceptible to the diphtheria bacillus protein when either toxoid or alum precipitated toxoid is used, it may be advisable to test them first by injecting 0.1 cc. of the toxoid material intradermally. This indicates the amount of hypersensitivity (Moloney reaction). My practice has been to inject from 0.1 cc. to 1.2 cc. subcutaneously and to consider this as part of the immunization procedure. The extent of the reaction determines the amount injected subsequently.

It is preferable not to immunize before nine months of age and not to inject routinely after 10 years of age without some good reason. In fact, one should routinely immunize adults, only if they belong to a group which will be intimately exposed to this infection, such as doctors, nurses or teachers. Even persons in this group should never be immunized unless first tested and the Schick test found to be positive. Most adults, especially those living in an area of preva-

lent infection, immunize themselves by subclinical attacks, so that by the time they have reached adulthood they have become negative reactors to the Schick test.

Typhoid Fever—Gastrointestinal infections often cause more debility than do the enemy. In the past, the most common one other than dysentery was typhoid fever. This can now be prevented by the use of typhoid vaccine. It has been tried on a large scale in military circles since the Russo-Japanese war, its efficiency demonstrated and its continued use justified.

Typhoid vaccine is not combined with paratyphoid A and paratyphoid B organisms.

It is unnecessary to vaccinate persons living in large cities where the water supply and sanitary conditions are good. In peace times it should be used for individuals usually above two years of age living in those localities where typhoid fever is endemic, where the water supply is unpurified and the sewage system primitive; for travelers, for members of the patient's family, for institutional personnel and for persons living in an epidemic area and for the military forces. In times of war, flood, fire or earthquake, etc., conditions are ripe for spreads of typhoid fever and all persons should be vaccinated.

Protection may last a long time, but in many instances it is lost within a year or two and some believe that a reinjection should be made each year in the springtime or at least every two years.

Typhoid vaccines may be injected immediately after known exposure, although even a high agglutinin titer produced by the vaccine at this time may not abort the disease in the well exposed individual.

Rabies—Any individual bitten by a rabid animal should be immunized by the Pasteur method but first every effort should be made to determine whether the animal was rabid. (*The bitten area should be thoroughly cauterized with fuming nitric acid.*)

Occasionally paralysis may occur with the use of vaccines. This, however, is not so important as the fact that recovery from this disease is rare. After the seventh dose, there may be local induration about this and subsequent injections and the sites of previous one may become indurated. Although the patient may become locally sensitized to vaccine material, the treatment can be continued. If paralysis occurs, the injection should be discontinued. Patients bitten about the nose and face, and children under 10 years of age should be given more than the usual number of injections.

Tetanus—Exposure to tetanus is common in the Army and some protection is advisable. In times

of peace we are not so frequently exposed. Protection is now given so easily that it is rapidly becoming routine to administer it even in private practice.

Tetanus toxoid was introduced too recently to say how long immunity will last. All agree, however, that it does immunize.

After immunization, the protective antibody content of the blood serum possessed by the patient decreases as time goes on. Hence, persons who have been previously vaccinated with tetanus toxoid and who are subsequently wounded must get another "stimulating" dose, or a "booster shot" of from 0.5 cc. to 1 cc. of tetanus toxoid. This takes the place of the usual dose of antitoxin injected in those exposed. Occasionally, an individual may become sensitized; therefore, it is advisable to do cutaneous tests before injecting the stimulating dose.

Persons should be vaccinated in early childhood when the local and general responses will be minimal and when the danger of tetanus first occurs, i.e., approximately between the ages of nine months and three years. Reinoculation depends on re-exposure and occurs at any age.

Most physicians who have had some experience in the prophylaxis of tetanus feel that more important than anything else, even more important than the use of antitoxin, is the physical, free removal of all foreign matter as early as possible by wide incision and an early evacuation of the foreign matter under anesthesia if necessary.

Whooping Cough—Where the housing shortage is acute and the living quarters crowded, respiratory infections spread more easily. One of the most debilitating of these infections is whooping cough. Sauer's vaccine may not be so effective an immunizing agent as is diphtheria toxoid, but no active immune procedure is 100 per cent efficient. It may not always prevent the disease but there is evidence to show that if an attack should occur in a vaccinated individual, it is much milder in character.

It has been stated that it probably takes four or five months for immunity to develop after the injection of Sauer's vaccine. The actual duration of protection is not definitely known, although clinical experience of many workers indicates that this may be at least for two years. It has not been decided whether it might not be a wise procedure to give a stimulating dose each year following the completion of active immunization.

It is considered best to vaccinate against pertussis between the ages of six and nine months, since reactions are less apt to occur at this age.

Scarlet Fever—Scarlet fever streptococcus toxin is used to immunize susceptible individuals. A Dick positive reactor may be rendered negative

by subcutaneous injections of increasing skin test doses of scarlet fever toxin at weekly intervals. If the immunization is to be carried out it should not be started before 12 months and preferably after 18 months of age. In institutional epidemics, the positive reactors should be immunized. Only a few doses may abate the epidemic.

Immunization can be used by the private physician if he remembers and understands the reactions that may occur and tells the parents about them.

Multiple Vaccines—Diphtheria toxoid of alum precipitated toxoid has been combined with alum precipitated whooping cough toxoid, with tetanus toxoid and with alum precipitated tetanus toxoid. None of these combinations is said to interfere with the production of diphtheria immunity.

One firm combines alum precipitated pertussis vaccine with alum precipitated diphtheria toxoid.

Cholera—Much interest has been created in cholera vaccines. Cholera has become important because many members of the armed forces will be sent to areas where cholera abounds. Cholera vibrios isolated from the rice water stools of patients are grown and a vaccine made of the killed organisms. Three doses are given and then repeated every four to six months when the individual is in danger areas. Although the results are uncertain, these injections should be given, nevertheless. It is the best thing we have. This vaccine is made by the Army as well as commercially. There is a cholera serum and it may be used, but once this disease is present in a patient the serum does little good.

Bubonic Plague—The vaccine for this disease is of questionable value, but one should want it if he were to be exposed to this disease.

Recently, Crabtree has stated that Bubonic Plague, endemic in ground squirrels and other rodents of the West Coast has spread as far as North Dakota. This infection may spread to gophers on the midwestern prairies and thence to the domestic rat population of our thickly settled communities of the Mississippi Valley, the Great Lakes area and the Atlantic Seaboard.

Typhus Fever—Visitors to equatorial areas and soldiers in the near East should be protected against typhus fever. The commercial vaccines now sold are made from epidemic typhus rickettsiae. I have heard Castaneda declare that such vaccines will protect only against an epidemic type of the disease and no increased amount will ever protect against the murine strains. On the other hand, he has stated that a combination of murine and epidemic types of rickettsiae would probably protect against both. This is the type of vaccine with which he is working at the present time.

Yellow Fever—Immunity against yellow fever does develop, and that quickly, when the vaccine is used. It should be given to everyone going into areas where yellow fever is either endemic or epidemic. Many of the soldiers who were recently injected developed jaundice. The cause is unknown at the moment. Since immunity develops so quickly, it is still felt that the vaccine should be given. Airplane points of departure and arrival may become foci of infection because of the routes taken by the pilots to South America and Africa.

PASSIVE IMMUNITY

The following biologic products should be used routinely:

Diphtheria—One thousand units of antitoxin may be given to persons exposed to diphtheria. This passive immunity lasts from ten days to several weeks. It is unnecessary, however, to inject exposees with this horse serum product unless the physician practices in inaccessible places. Should a person get diphtheria, the children in the family should be observed closely. Many of them will not contract the disease anyway and do not need passive protection. If they do get the disease, it is observed early enough and can be quickly aborted by the use of antitoxin. If one wishes to immunize a child actively after passive immunization, some time should elapse before the injections are given. There are reports, however, where simultaneous administration of prophylactic antitoxin and toxoid was followed by Schick negativity.

The patient who contracts diphtheria during the course of active immunization should be treated with antitoxin.

Ordinary mild or moderate diphtheria responds readily to from 20,000 to 40,000 units of antitoxin injected intramuscularly. If the infection has gone too long or if the offending organism is the *diphtheria Gravis*, more antitoxin is necessary. Antitoxin is given intravenously only when the blood pressure has dropped.

Tetanus—In treating tetanus, large amounts of tetanus antitoxin are advised by some and smaller by others; still others feel that antitoxin is of little value. In any event, antitoxin is recommended. Some believe that it is more important to treat the patient by systemic sedation.

If the patient has not been immunized, tetanus antitoxin is used as a passive immune principle.

Persons who have received contaminated wounds and who have not been vaccinated within a month previously should receive from 1,000 to 2,000 units of tetanus antitoxin intramuscularly. This may not always prevent the disease if the lesion has been near the head or if the injury and exposure are massive. In these patients, the dose should be repeated in from seven to ten days.

Most practitioners inject a combination of tetanus and gas gangrene antitoxin.

Epidemic Meningitis—This is a disease found in crowded quarters. Its incidence is increasing. No one opinion can crystallize current thoughts as to treatment. Specific antiserums, specific antitoxins, sulfanilamide or sulfadiazine are used alone or in combination.

Some believe that one of the chemotherapeutic drugs (sulfanilamide or sulfadiazine) should be first tried and if there is no improvement within 24 hours, antitoxin should be tried. Some treat all patients by giving a slow continuous drip of from 100,000 to 150,000 units of meningococcic antitoxin in 1000 cc. saline to which 1 cc. of 1:1000 adrenalin has been added and at the same time give a sulfonamide drug.

The condition of the patient determines whether further treatment is indicated. No therapy is given intrathecally. Lumbar puncture is made for diagnosis only and not for drainage.

Pneumonia—In pneumonia, sulfathiazole or sulfadiazine should first be tried and serum used only in refractory cases. The number of units of the specific antiserum injected depends upon the severity of the disease; usually it is from 100,000 to 200,000 units given in a slow continuous drip. Chemotherapy is valueless in leukopenic pneumonia and so-called atypical or virus pneumonias. One should keep these patients isolated; the infection can spread by contact. Always type the organism.

Measles—For the past three years, there have been but few cases in our locality. A susceptible population is growing up and we are due for a definite increase in morbidity—if not this year then next year. To prevent the infection, convalescent serum or placental globulin extract is injected intramuscularly within the first few days after exposure. Since exposure occurs about 3 to 4 days before the rash appears, the serum is rarely given in time for complete protection. Anyway, the objective should be *to modify and not to prevent the disease*. Hence, either of the two materials mentioned should be given on the sixth day after exposure, i.e., about the second day after the rash has appeared in the original case contacted.

Disease depends on intimacy of exposure, the dose of the specific agent, size, age, etc. The efficacy of any serum depends upon a variable antibody titer; therefore, what may follow the administration of convalescent serum is unpredictable. There may be (a) unmodified measles, (b) measles after a prolonged incubation period, (c) a modified attack with persistent immunity and (d) complete protection. *It is pertinent to stress the point that permanent immunity does not invariably follow modified measles.*

Adult whole blood, human convalescent measles serum and placental globulin extract have been used in passive immunization. Adult whole blood is of slight value. Convalescent serum in amounts of 50 cc. or more and from 2 cc. to 10 cc. of placental globulin extract have been used in the prodromal stage of the disease and may be of value. The bronchopneumonia seen with this disease is usually due to streptococci and responds to the sulfonamides.

Scarlet Fever—The severity of scarlet fever has been on the wane, but here again the time is ripe and the conditions favorable for the appearance of an old-fashioned epidemic with a high mortality rate.

The Schultz-Charlton or blanching test is performed by injecting convalescent scarlet fever serum or scarlet fever antitoxin intradermally into the patient with a scarlatiniform eruption. There will be blanching of the skin at the site of the injection. Its usefulness is limited, since (1) a negative test does not rule out scarlet fever; (2) a papular rash cannot be blanched and (3) a rash more than 3 days old is not affected. It is of little practical value and usually will not aid in diagnosing the doubtful case.

Those exposed to scarlet fever should not be given specific serum or antitoxin. Sulfanilamide should not be used, since drug sensitization may follow which would preclude the use of the drug later in a more serious condition.

Scarlet fever antitoxin has been used as a passive immune principle. The present purified antitoxins manufactured by Lederle Laboratories, Inc., and Parke, Davis & Company cause but few reactions and give excellent results. One or two ampules of this type of antitoxin injected intramuscularly may be used as early as possible in the toxic and severely ill patient. Convalescent serum may be of value, but it has to be used in large amounts—at least from 80 cc. to 100 cc—and it is too expensive. Late complications can be treated with sulfanilamide.

MISCELLANEOUS BIOLOGICALS

There are staphylococcus toxoids, staphylococcus antitoxin, B. tularemia antiserum, anti-anthrax and gas gangrene antiserums, Botulinus antitoxin, poison ivy antigen, fungus antigens, lymphogranuloma antigen tests, and convalescent poliomyelitis serum (human). These may be tried.

Encephalitis, dysentery and mumps serums and Krueger's endo-antigen or Topagen for pertussis are of little value.

An anti-anthrax serum is available, but its value is doubtful. Botulinus antitoxin has been used with questionable results. This disease develops so rapidly that no therapy is of much worth. By the time the serum is obtained, the patient is better or at least on the way to re-

covery—and once he starts to get better, few medicines are needed.

The biological tests described for brucellosis (undulant fever)—an agglutination and a skin test—have to be interpreted with great caution.

The skin test is of doubtful value because even when it is positive, it does not indicate an acute infection. If a patient should have been vaccinated against the disease, neither test is of much value. Brucellosis is becoming a serious problem and there are often more cases in a community than is realized. The vaccines used to prevent are impractical and of questionable value.

Oral Vaccination—Some years ago, Besredka showed that animals that ingested bacteria developed antibodies. These experiments were with bacteria which ordinarily gain access to the human body by way of the gastrointestinal tract. For this reason, individuals were given typhoid vaccine by mouth. When the antigen is ingested immune bodies (agglutinins) may develop, but not in the same titer as follows subcutaneous injection. It is not definite that bacteria, which have a portal of entry along the upper respiratory passages, will produce protection in an individual if the vaccine is introduced by way of another portal, i.e., the gastrointestinal tract.

Dysentery—The dysentery serums have become of greater interest because of the war. Perhaps we may still find a serum that is of value. At present, there are serums for protection against the Donne and Dispar types of dysentery, neither of which are of much worth.

Poliomyelitis Human Serum—Convalescent poliomyelitis serum is sometimes used. Its value has not been demonstrated in controlled experiments.

Tuberculosis—The shortage of food, the long hours of work, crowded homes, etc., are bound to affect the health of a community and an increase in the morbidity of tuberculosis is expected.

Physicians in private practice can best help prevent the spread by diagnosing their cases early. Some help is obtained by the intelligent use of the tuberculin reaction.

If the tuberculin test is positive, it does not necessarily indicate the presence of clinically active tuberculosis but does indicate that infection with the tubercle bacillus has occurred and an X-ray is indicated. If the tuberculin test has been negative and becomes positive it indicates that an active infection has occurred between the times of the test. If the reaction is positive in a child under two years of age, it is possible, although improbable, that he may have recovered from the active disease. A persistently negative tuberculin test in a dilution as low as 1:10 is generally considered to mean that the individual is not infected with the tubercle bacilli.

Infection may be contracted at any time; consequently, individuals should be tested frequently, yearly if possible in private practice. At least all individuals should be tested every three years beginning at the age of three and at any time when there is a history of exposure to active tuberculosis.

One should be careful about hiring individuals to care for children.

Up to now the Pure Food Laws have been our protection. No longer did we eat meat from cattle infected with tuberculosis, meat, which would cause dysentery, no longer until recently. Now selfishness, greed and man's callousness toward his fellowman have created the black market, through which uninspected and diseased meat may pass on to a gullible public. This alone may increase the morbidity of tuberculosis.

COMMENT

Immunity, resistance or protection cannot be understood unless one appreciates that immunity is not absolute, but only relative. Immunity is that unknown something possessed by an individual which protects him to the extent that he will not contract a disease if he is exposed to the ordinary dose of the exciting agent, while the same dose would bring down the average unprotected susceptible person. Active acquired immunity does not protect against an overwhelming exposure.

Any passive immune principle, such as anti-toxin, antiserum or human convalescent serum gives protection for only a short duration, after which exposees are again susceptible. Thus, it is obvious that if a disease is epidemic and the exposure repeated the exposed individual will have to be immunized repeatedly—a highly impractical procedure.

The Ohio civilian practitioner of 50 years ago was well acquainted with some of the diseases which have become inactive in this territory, although still endemic and epidemic in other parts of the world. Our soldiers will become ravaged by disease of which we haven't thought about since we were medical students. His supply line in Africa is across the tsetse fly belt. Old familiar household insects now harmless may be found capable of becoming vectors for new diseases. Airplane travel will spread them. Evacuated refugees from disease ridden communities will act as reservoirs in an undefended population. Medical men must take down their books, dust them off and again become acquainted with such diseases as malaria, black water fever, typhus fever, plague, all types of dysentery, yellow fever, mud fever, autumn fever, jaundice, flukes, etc., trypanosomiasis, infectious jaundice, relapsing fever and trench fever, etc. Something about these must be learned.

One word of caution must be interjected about

the use of sulfonamide drugs. Organisms are like people; they adapt themselves. If not overwhelmed at the start they may become drug resistant, produce more para-amino-benzoic acid and increase their virulence by neutralizing sulfonamide actions. Sulfonamide drugs for such patients are useless and may be harmful. Drugs should be used for infectious disease only when indicated.

RECOMMENDATIONS FOR IMMUNIZATION PROCEDURES

Vaccinate against smallpox at any age during an epidemic, but routinely any time between three and 12 months. Repeat at six and 12 years of age and during an epidemic. Revaccinate if necessary.

Immunize against diphtheria between nine and 18 months. Tetanus toxoid has been used in combination with diphtheria toxoid.

Vaccine against pertusis at eight months or at any subsequent time.

Do a Schick test (or given another injection of diphtheria toxoid) between 18 and 24 months. Re-immunize against diphtheria if necessary. Repeat the Schick test (or give another injection of alum precipitated toxoid) at six and 12 years.

Do a tuberculin test at three years of age and possibly every third year thereafter up to the eighteenth year.

Tetanus toxoid may be given at any age period, but the reactions are not so severe if given between two and six years.

Scarlet fever toxin might be given to groups previously indicated during epidemics and to abort an epidemic. In routine immunization, it is best given when the child is about 18 months of age.

Typhoid fever vaccine should be given at any age after two years and when and where it is indicated.

There are general rules to keep up a person's resistance. Get enough sleep; keep meticulously clean; play and relax a little each day; eat and drink correctly.

The report of the Committee on Therapeutic Procedures for Acute Infectious Disease and on Biologicals of the American Academy of Pediatrics describes the methods of immunization. This may be secured from Clifford G. Grulee, M.D., Secretary, American Academy of Pediatrics, 636 Church Street, Evanston, Illinois. The price is 10c.

Early Diagnosis in Tuberculosis

Early diagnosis is meaningless unless it leads at once to intelligent handling, prompt care and adequate follow-up, with eventual recovery and maximum rehabilitation the goal.—Samuel C. Stein, M.D., Public Health Nursing, March, 1943.

Tendon Suture

JOSEPH A. SOFFEL, M.D., F.A.C.S.

Major, M.C., A.U.S.

THERE are a large number of technics in use for tendon suture. However, the most important need appears to be protection against tearing through, and, in the larger tendons, an opportunity to avoid fixation in the tendon sheaths. In repair of a large tendon, such as the Achilles, these needs are emphasized.

C. W., aged seven, was admitted to The Western Pennsylvania Hospital September 2, 1941, following an accident which occurred while wading in a creek. He sustained a large, deep laceration over the Achilles' tendon of the left ankle. This severance of the tendon was complete, and the foot was held in a position of flexion. The nerves of the medial surface of the foot were also severed.

Operation: The ragged, two-inch laceration at the back of the left ankle was thoroughly cleansed with soap and alcohol in several stages and then painted with pheneco. The ends of the tibial nerve were visualized and were apposed with fine silk sutures, placed in the nerve sheath. The deep fascia plane was sutured with interrupted stitches of fine chromic catgut. The laceration of the Achilles' tendon was somewhat diagonal and included the gastrocnemius and soleus components. These were sutured individually, using interrupted mattress sutures of moderately heavy silk, so placed that the knots were within the center of the tendons, and the transverse portions to the mattress were about three quarters of an inch from the edge of the laceration. Three mattress sutures were placed in the Achilles' portion of the soleus tendon, and the edges of the tendon were apposed with very fine silk. The gastrocnemius portion of the Achilles' tendon was then sutured, using six similar mattress sutures, with the knots tied within the center of the tendon, and the edges of the tendon were apposed with fine silk. Superficial fascia were sutured with catgut, and the skin was closed with silk.

Plaster splints were applied with the foot in equinus position. These splints were kept applied for a period of three weeks, the superior splint only being removed to dress the wound and remove the stitches. The wound healed by primary intention. At subsequent dressings, a small amount of passive motion was applied; later, active motion was permitted, and the full course of flexion of the foot was attained, with complete union of the Achilles' tendon. The avoidance of tension of the sutured tendon was partly accomplished by burying the knots within the tendon and using very fine sutures on the edges, and, in addition, by closure of the fascial plane. This mattress suture was applied using a curved needle, taking it right from the center of the substance of the tendon, through the tendon about three quarters of an inch, coming out and across the tendon for about one quarter of an inch, re-inserting the needle and coming out within the free margin of the tendon. This was repeated on the opposite side. In this manner, adequate variation was obtained for relief of tension, and the knots were applied within the substance.

Atypical (virus type) Pneumonia With Cor Pulmonale

ROBERT M. WOOLFORD, M.D. and JOSEPH H. OGURA, M.D.*

A THIRTY year old colored female entered the Cincinnati General Hospital in September, 1942, with progressive dyspnea of two weeks' duration. She had had a mild exertional dyspnea since a thoracoplasty three years before. She was observed frequently in the chest clinic, had been well when last seen one month before entry. Her husband, however, had noted a gradual increase in her dyspnea.

Two weeks prior to entry, following an upper respiratory infection, the patient became acutely dyspneic and orthopneic. A mild productive cough often initiated paroxysms of dyspnea. She noticed ankle edema and was troubled by a sensation of epigastric fullness. Her dyspnea failed to improve at home on bed rest, digitalis and sedation. There had been no chest pain or hemoptysis.

Past History: The patient was admitted to the Hamilton County Tuberculosis Hospital in December of 1934 with cough of one year's duration. There was bilateral caseous bronchopneumonia with cavitation, more advanced on the left, with emphysema on the right. Bilateral collapse therapy (pneumothorax) was instituted in January, 1935, and left phrenicectomy was performed in 1936. A left bronchopleural fistula with tuberculous empyema developed in 1938, necessitating a three stage thoracoplasty with removal of ten ribs. Right pneumothorax was abandoned. Improvement thereafter was rapid. The sputum was negative in two months, and the patient was ambulatory in six months. She was discharged a year later (1940), at which time X-rays showed complete collapse of the left lung with healed fibrosed lesions in the right upper lobe. There was no change in repeat films, which were taken at six months intervals.

Physical Examination: Temperature 99.6°; pulse 108; respiration 42; blood pressure 130/70. Patient was cyanotic, semi-stuporous, breathing rapidly but not deeply, with some prolongation of expiration. The deformity of the left thoracoplasty was present with resultant left scoliosis and moderate dorsal kyphosis. Sibilant and sonorous rhonchi were heard over the whole right chest, medium rales over the lower half. There was little or no functioning lung on the left. The right border of cardiac dullness was four cms. to the right of the midsternal line. A diastolic gallop rhythm was heard along the right sternal border. The pulmonic second sound was greatly accentuated. There was moderate abdominal distension with a small amount of free fluid. Liver dullness extended two finger breadths below the costal margin. There was a moderate amount of pitting pretibial edema.

Laboratory Data: Hgb. 14 grams; R.B.C. count 4 million; W.B.C. count 25,000 with 92 per cent P.M.N. The urine held a specific gravity of 1.010-1.025 with one to two plus albumin. The

sputum was negative for pneumococci and tubercle bacilli. E.K.G.s showed right axis deviation, low voltage T waves in all leads, type II nodal rhythm and sinus tachycardia. Chest X-ray on entry was read as "bronchopneumonia in the right lower field" and the heart extended farther to the right of the sternum than on previous examinations. Venous pressure was 26 cms. of water but was measured in the femoral vein (inaccurate due to abdominal fluid). Blood urea nitrogen, 19 mg. per cent. Serum proteins 5.63 grams, A/G ratio 1.68, CO₂ C. P. 86 vol. per cent.

Blood gases, from femoral artery: On the fourth hospital day,

	Oxygen Vol. %	CO ₂ Vol. %	Oxygen Satura- tion	Cyanosis
Patient breathing room air	10.05	69.4	52%	++
Patient breathing 100% O ₂ (mask)	19.2	73.3	101%	0

On the eleventh hospital day,

	Oxygen Vol. %	CO ₂ Vol. %	Oxygen Satura- tion	Cyanosis
Patient breathing room air	6.65	89.8	39%	+++
Patient breathing 100% O ₂ (mask)	16.2	92.2	90%	0

Course: Adrenalin relieved the expiratory difficulty to a slight extent, but was not given after the day of entry. The patient was completely digitalized, placed in an oxygen tent and given mercurial diuretics. In four days she was responsive and mentally alert, but the low grade fever continued and the lung findings were unchanged. Thereafter she gradually failed. The white count fell to 11,000 and remained at that level, pulse rose to 120-130 and respiration stayed at 30 to 40. A BLB aviation oxygen mask brought temporary subjective improvement and relieved the patient's cyanosis, but dyspnea continued. Sulfadiazine was given from the third to the seventh day with no marked improvement. The patient became less and less tolerant of room air and was unable to be without her mask for any period of time. A portable chest plate on the twelfth day showed infiltrate in the right lower lung field and also in the first interspace. While being bathed on the thirteenth hospital day, the patient became cyanotic and died suddenly.

Clinical diagnoses were: Bronchopneumonia, etiology undetermined; possible pulmonary infarction; cor pulmonale; pulmonary tuberculosis, probably inactive; pulmonary parenchymal fibrosis.

Necropsy (N-42-425): The necropsy was performed on September 20, 1942, five and one-half hours post mortem.

Gross Examination: The body, measuring 150 cms. in length, was that of a well developed and well nourished black female, apparently 30 years of age. A well healed left thoracoplasty scar was present. When the sternum was removed, the heart was found displaced to the right and the left thoracic cage was greatly reduced in size. The anterior lateral and posterior

This is the fifteenth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

intercostal spaces were much narrowed. The left pleural cavity was obliterated by old, dense, firm, fibrous adhesions. The right lung was voluminous, but emphysematous bullae were absent. A rather marked dilatation of the right atrial and ventricular cavities was present. The measurements of the heart in situ were as follows: for the left border, 2nd intercostal space, 5.5 cm.; 3rd intercostal space, 7 cms.; 4th intercostal space, 9 cm.; for the right border, 3rd intercostal space 4 cm.; 4th intercostal space, 5 cm.; 5th intercostal space, 6.5 cm. The heart weighed 260 gm. (within normal limits for sex and height) and the markedly dilated right atrial and ventricular cavities were filled with post-mortem clots. On section, the right ventricle measured 11 mm. in thickness while the left measured 13 mm. The individual muscle bundles of the right ventricle appeared larger than normal and compressed by the dilatation. The endocardium, valves, and epicardium were normal. The coronary arteries and aorta were normal. The left lung consisted of a small rubbery mass of grayish black tissue, the surface of which showed extensive connective tissue thickening. It was completely atelectatic on section with extensive fibrosis. No gross demonstrable areas of tuberculosis were evident. Numerous varying sized, but principally large, firm hemorrhagic areas were noted in all of the lobes of the right lung. Some were wedge shaped, with the broad base at the periphery, but this was more often not the case. Though it was difficult to be certain, it was estimated that at least one-third of the right lung, if not more, was involved in this process. On section, there was a hemorrhagic appearance and the cut surface was moist and somewhat firm, yet crepitation could be made out. Dependent vascular congestion was present in the lung. The left main bronchus below the carina was about one quarter the diameter of that of the right. The mucosa showed some hyperemia, but thickening and purulent exudate were lacking. The hilar lymph nodes showed no active foci of tuberculosis. The examination of the remaining viscera showed chronic passive congestion of the abdominal organs and a few hemorrhagic patches in the mucosa of the urinary bladder.

Microscopic Examination: Sections taken through the hemorrhagic areas in the right lung showed the alveolar walls to be markedly thickened by marked vascular congestion, mononuclear cell infiltration and alveolar cell swelling. A few polymorphonuclear leukocytes were present in the wall. The effect was to narrow the air sac space markedly. The cytoplasm of some of these alveolar epithelial cells contained "inclusion bodies"—round homogenous, eosinophilic masses, measuring from a fraction of a micron to 3 micra, and surrounded by a narrow halo. The bronchial epithelium shows no inclusion bodies. The non-hemorrhagic areas show dilatation of the air sacs, and numerous ruptures of the alveolar wall. Desquamated pigment laden cells were present in the alveoli of the dependent portions of the lung. The left lung showed complete atelectasis and marked areas of fibrosis. A few scattered lymphocytes were present. No areas of active tuberculosis were demonstrated in either lung. Sections taken through the right ventricle of the heart showed moderate enlargement of the myofibrils. Discrete small tubercles consisting of epithelioid cells, caseation, lymphocytes and giant cells were scattered in the endometrium.

The final pathologic diagnoses were: Atypical (virus type) pneumonia, right; cor pulmonale (right ventricular hypertrophy); acute passive congestion of lungs; complete atelectasis and fibrosis of the left lung; tuberculous endometritis; pulmonary emphysema, right.

DISCUSSION

The sequence of events can be reconstructed with some assurance. Following thoracoplasty the strain on the right heart was increased, since almost the whole blood flow was diverted through the remaining emphysematous lung. The gradual increase in dyspnea suggests that the vital capacity was further diminished during the year before entry. The virus pneumonia then markedly decreased oxygenation of the blood with resulting cardiac and pulmonary failure.

Of particular interest were the results in the blood gas studies, which showed retention of CO₂, oxygen lack, and the blood picture of "respiratory acidosis". To quote from the notation of Dr. Joseph Webb, who made the determinations, "Her dyspnea is much relieved by the oxygen mask although the CO₂ content actually rises; hence the stimulus to respiration in her case cannot be CO₂ or pH but must be oxygen lack or low oxygen tension". The marked thickening of the inter-alveolar septa helps explain CO₂ retention and low blood oxygen levels, and it is easy to see why cyanosis is such a prominent feature of this disease.

The pathologic picture is similar to that described by others^{1,2} with "inclusion bodies" present.

SUMMARY

A case of "virus" pneumonia is reported, occurring in a patient with a previous thoracoplasty, and resulting in anoxemia, cardiac failure and death. Blood gas studies and autopsy findings are presented.

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One Dose Insulin

Mixtures of insulin and protamine zinc insulin, either prepared in the syringe prior to injection or premixed in vials ready for use by the patient, have shown decided advantages in the treatment of diabetes. As a rule, fewer total units have been required, better twenty-four hour control has been established, and only one dose each twenty-four hours has been necessary.

The one-dose method has simplified diabetic treatment rather than complicated it. A mixture containing approximately two parts of insulin to one of protamine zinc insulin has been most generally useful. Nocturnal hypoglycemia has been avoided without sacrificing good twenty-four hour control.—Franklin B. Peck, M.D., Indianapolis; Jour. Ind. S.M.A., Vol. 36, No. 7, July, 1943.

Danger From Fluoroscopy

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NO fluoroscopic unit should be used unless the doctor in charge has convinced himself that the conditions under which it is operated are reasonably safe. A continuous vigilance is necessary, and it is not enough to know that the conditions were satisfactory at one time in the past.

A shock-proofed arrangement should remove electrical dangers but a broken cable or a casual repair may lead to electrical hazards, and many of the old machines have exposed high-voltage leads. Grounding a part of the apparatus may not always serve as a protection, and if the ground is applied at the wrong place the danger may be increased. A careful expert inspection is needed and there can be no valid excuse for an accidental electrocution though such accidents have occurred a number of times.

In order to obtain adequate protection, it is first required that the tube is shielded so that no radiation of any consequence escapes in any direction except in the useful beam. This may be checked roughly with a hand fluoroscope or more accurately with a roentgen meter with a sensitivity of 0.01 r or a Geiger-Muller Counter. After this first requirement has been fulfilled several other precautions must be taken.

For any intelligent use of fluoroscopy, it is important to know the amount of roentgen rays reaching the skin of the patient and of the examiner, and that has to be determined by means of measurements. The total dose received depends upon the intensity and the time of exposure. The intensity depends upon a number of factors and varies widely in practice. A reasonable intensity at the skin of the patient nearest to the tube amounts to about 20 r per minute.

Mr. Marvin, of the division of Biophysics, University Hospital, has recently checked some machines in Minnesota, and has found intensities during routine practice up to 114 r per minute. It is evident that such an intensity is dangerous and must be reduced by proper adjustments.

The intensity may be reduced by increasing the distance from the target to the patient. This distance should be at least 28 to 30 cm. It can also be reduced by lowering the current which should not exceed 4 to 5 ma. If the fluorescence is not bright enough the voltage may be raised and it is advisable to use rather high voltage, preferably 80 kv. or 100 kv. if possible with the equipment. With a high voltage a filter helps to lower the intensity considerably and a 1 mm. aluminum filter should be permanently attached.

With the use of 28 cm. target skin distance, 90 kilovolts and 4 ma. and 1 mm. aluminum filter, the intensity can undoubtedly be kept within the safe range, but it is still advisable to have it measured so that the number of roentgens applied per minute will be known.

The time used for an examination should be kept at a minimum. It should be measured and recorded. A foot switch should be used so that the current applied to the tube may be limited to the time of inspection. The use of a timer which sums up the exposure and shuts off the machine when the dose has been given as decided on, is advisable.

Some fluoroscopic examinations require an exposure of 5 minutes. With an intensity of 20 r at the patient's skin, this means a dose of 100 roentgens. A dose of 75 r is often used for treatments of skin diseases and the title of a publication in *The Journal of Radiology*, "Roentgen Therapy in Fluoroscopy" is, therefore, no exaggeration.

The rules laid down here for the safety of the patient may seem drastic. They are, however, not difficult to follow after they once have been accepted and certainly the patients have the right to expect of the physician that he takes the necessary precautions in order to avoid a serious injury from a simple examination. These rules also help to protect the examiner, through any injury to him is due to accumulation of exposure over a long time rather than to a single dose. He must be particularly careful to protect the hands which are inevitably exposed at palpation during the fluoroscopic examination. The use of lead-rubber gloves may help but not unless the gloves are heavy and designed to shield the whole hand can they be relied upon to give complete protection. Light gloves may give a false sense of security. The examiner must in any case be aware of the danger and take all precautions possible.

The most dangerous procedure and the one which has caused most of the injuries is the setting of fractures under fluoroscopic visualization. This practice must be condemned and the radiologist in charge should enforce the rule that nobody on the staff be permitted to use the apparatus in this manner. The doctor may receive enough exposure from the setting of a single fracture to produce a severe skin reaction. It is, of course, good practice to inspect the position fluoroscopically and that can be done several times without exceeding the permissible total dose.

I have seen a number of physicians who have suffered the consequences of too much exposure during fluoroscopy. They have been severely handicapped, and at least one of them has already paid with his life. The tragedy has been extremely impressive.

Reprint of an editorial published in *Minnesota Medicine*, Vol. 26, No. 6, June, 1943, with permission of the author, Dr. Stenstrom, professor of biophysics, University of Minnesota, and Dr. Carl B. Drake, editor of *Minnesota Medicine*.

Current Thinking on Nutrition

JONATHAN FORMAN, B.A., M.D.

USUALLY discussions on nutrition limit themselves to a consideration of the selection, purchase, preservation and preparation of food with sometimes a discussion of the digestion and assimilation of the foodstuffs. For three years now the Tar Hollow Conferences on Conservation, Nutrition, and Human Health, given as one of the features of the annual sessions of the Ohio Conservation Laboratory for Teachers, have gained increasing national attention because they have been the first to call a group of experts together to present nutrition "from the ground up."

Robust health depends upon good nutrition. Good nutrition depends primarily upon good food. Nutritious food comes from proteinaceous and mineral-rich plants and fruits. These in turn come from fertile soils, rich in all essential elements. Each year the experts who have gathered at Tar Hollow have emphasized the role open to comprehensive soil conservation in creating healthy individuals, plants and animals, that society may make sound political and economic progress.

More than half of our original topsoil has been destroyed. Our faulty agricultural practices have greatly reduced the fertility of our soils through erosion, over-cropping, leaching, and our failure to return to our soils that which we borrowed.

Soil is the starting point in human health. A lettuce leaf is a lettuce leaf to the average housewife, but to the scientist a lettuce leaf can be either "merely a lettuce leaf" or else it can be a repository rich in vitamins and needed minerals, depending entirely upon the soil from which it grew. Much evidence has been accumulated in plant breeding, proving that some varieties of vegetables are more nutritious than others and within the common variety great variations may exist, subject to the quality of the soil in which they have grown. The primary phase of comprehensive conservation, then, becomes a matter of saving ourselves through saving our soil.

Equally important to the soil is water, for without water the land becomes a desert. Mr. Fink, the Director of the Tar Hollow Laboratory, has always emphasized the importance of water to each of us by drawing a picture of what he calls your water pyramid. If your water pyramid is small then you will be sickly and poor; but if your water pyramid is large then you will have health and prosperity. On the top

of your pyramid is 70 per cent of water in your own body. Under this is a layer consisting of 1000 pounds of water in the food that you eat each year. Below this is a second layer of 3000 pounds used each year by your body in maintaining the body tissue juices at the proper saline solution. Next comes the third layer of 100,000 pounds used each year in your personal hygiene and body care. The fourth layer consists of 400,000 pounds of water used annually in the production of plant foods for you. Underneath this is a larger layer of 500,000 pounds of water used each year in the production for you of milk, cream, butter and cheese. The sixth layer is 10,000,000 pounds of water used in the production of your annual share of meat products. One pound of beef requires up to 60,000 pounds in its production.

Underneath is the huge lake of water used for municipal purposes and recreation.

DISTRIBUTION OF WATER SUPPLY

Our industrial civilization is dependent on an adequate supply of pure water. The Creator has been good to us here in Ohio for He supplies us with an average rainfall of 37.97 inches. The total rainfall, however, does not all stay on the land but is dispersed in three different directions: (a) run off; (b) soil moisture; (c) ground water.

The run off amounts to 11.55 inches. If we would trap the raindrops and make them our servants, we must first study their paths and understand what phases of the storm dispersal processes are harmful and which phases are beneficial.

So this year W. D. Ellison, Supervisor of the U.S. Northwest Appalachian Soil and Water Conservation Experimentation Station at Coshocton, Ohio, was invited to come to Tar Hollow and explain the importance of trapping the raindrops in the fields upstream.

If the surface of the land is not protected its pores clog and become sealed. This increases the run-off and creates floods. So it is the land operator's job to protect the surface from high rainfall impact and in other ways to maintain the openness to the soil's pores.

The next step in storm disposal is that of distributing water through the soil profiles—either carrying it away by drainage, storing it in the soil, or using it in evapo-transpiration processes.

This is a duplication of what Dr. Wilber Stout, State Geologist, told us at the Tar Hollow Conference last year. Soil moisture uses up on

an average here in Ohio about 15 inches per year. This nourishes the root systems of the crops and supplies the necessary humidity for the foliage. The statement is made that it takes 10 inches of such moisture to grow a good crop of corn.

Last year at Tar Hollow we emphasized the importance of the ground water or that stored below the soil level. Stripped of the technicalities this is our well water supply. This amounts to 11.42 inches. This is the water that is supplied to the farm wells, that issues from springs and artesian wells, and that which slowly seeps through the sand and gravel, and thus maintains flow of streams.

Unfortunately the supply of ground water is gradually but continually declining at approximately one foot per year. This means that many farm and village wells formerly yielding are now dry, that many springs and artesian wells cease to flow and that stream flow in brooks and runs is much lessened. Further, industries and towns drawing millions of gallons per day from the larger streams are in serious trouble.

If, however, we could save as little as 3/100 of the run off the human needs could be supplied. By saving 2/11 of the run off both human and industrial needs may be taken care of in a satisfactory way.

So Supervisor Ellison's authoritative discussion of how to trap the raindrops and how to get them in our soil is of the greatest importance. In this working to save our water, the most important factor by far is the farmer. His part includes keeping a cover crop on the surface and a high content of humus in the soil as well as contour plowing and strip cropping. Nature has given us an abundance of water; it is our fault if we come to live on a desert.

SIGNIFICANCE OF CHANGING ATMOSPHERIC ENVIRONMENT

Last year, Dr. Clarence Mills of Cincinnati gave us the gist of his book "Climate Makes the Man." This year we were fortunate in having Dr. William F. Petersen, author of the four-volume work, "The Patient and the Weather", present the results of his investigations into the significance of changing atmospheric environment as a cause of changes in biochemic levels in the blood and urine, in the water balance, in organ function, and in resistance to intoxication or infection.

Dr. Petersen paid his respects to Hippocrates, who seemed to understand such matters better than we moderns. For he wrote, "Whoever wishes to investigate medicine properly should proceed thus: In the first place to consider the season of the year and what effect each of them produces. Then, the winds, the hot and the cold, especially such as are common to all countries,

and then such as are peculiar to each locality. We must also consider the qualities of the waters—". So the master began the chapter "On Airs, Waters and Places" which corresponds so well with Dr. Petersen's researches.

Dr. Petersen reviewed his work on how the trends in inheritance can be modified by impacts from the surroundings. How the sex, malformations and body stature may be influenced by the meteorological conditions existing at the time of conception.

He then proceeded to the medical implications. The metabolic tempo of the mother is determined by the weather. The metabolic tempo of the embryo is determined by that of the mother. Then the demonstration of the modification of habits and of organ balance appears as a logical sequence. Resistance to disease is then bound up with body habitus, with organ balance and with metabolic rate. So it becomes clear why individuals who die from different diseases might show conception preponderance at different times of the year. The metabolic tempo, in other words, the oxidation pattern once established must play a role in determining the resistance of the individual to disease.

So as weather makes its impact upon our bodies, it carries with it wide deviations from the normal, so wide at times that the body cannot make the necessary adjustment. Failure of the body to make necessary adjustment spells disease. In other words, the dysfunction that may result when the body fails to make adjustment to these violent changes are small muscle spasm, tissue hydration, thrombosis, coma and lowered resistance to infection. So Dr. Petersen opened a whole new field to plant and human pathologists and nutritionists.

SOIL NUTRITION

It is part of the program of each Tar Hollow Conference to emphasize both the major and the trace elements in the soil as they are related to the nutrition of soil bacteria, plants, animals, both domestic and wild, as well as human beings. This year William A. Albrecht, Professor of Soils at the University of Missouri, and a foremost authority on soil nutrition, discussed calcium. Professor Albrecht's own investigation has proven that we lime our soil not so much to decrease its acidity as to offer calcium as an essential nutrient for both soil bacteria and plants. Furthermore, he has shown by biological assay that calcium which comes to us through plants, fruits, meat or mills than if we were to get it as a dry salt supplement. With Albrecht's experimental sheep it was 75 per cent more efficient. With the oncoming wartime shortage this is something to remember.

As an illustration of a trace element, this year iodine was used at Tar Hollow by George M.

Curtis, M.D., Professor of Surgical Research at Ohio State University, and an internationally known authority on iodine metabolism in the human.

He emphasized that iodine in very small amounts is essential to life, that iodine in our food is the most important single factor in determining the goitre incidence in a given region; that iodine content of our food, in time, depends upon the iodine content of the soil. In areas where this is deficient, Dr. Curtis recommends the use of iodized salt for both domestic animals and humans. He took time to discuss in detail the advantages and harmlessness of iodized salt.

IMPORTANCE OF MINERALS IN HUMAN NUTRITION

Major Z. T. Wirtschafter, M.C., A.U.S., (formerly of Cleveland, O.) then gave a concise but comprehensive discussion of the importance of minerals in human nutrition. He spoke of sodium and its role as the largest fraction of the total base of the body's fluids and as one of the main components which determines the osmotic equilibrium; how its loss leads to an acidosis as seen in many diseases. He also discussed potassium, calcium, magnesium, chlorine, phosphorous and sulphur. Dr. Wirtschafter emphasized throughout his discussion that the total mineral content of a diet cannot serve as an index for the adequacy of the mineral supply since such an index ignores the specific role of each mineral. One mineral cannot substitute for another. The separate and distinct functions of the various minerals maintain, in the human economy, the normal and proper performance of the vital function of our bodies. The performance of these vital functions is dependent upon the ingestion, utilization and excretion of these mineral elements.

SOIL CONSERVATION

At the noonday on Sunday, Governor John W. Bricker showed his keen appreciation of our comprehensive conservation program when he said, "Our health is dependent upon the soil, the kind of soil we maintain and build up through a conservation program. A conservation program as a way of life and living close to the soil has no equal for the development of character in a people. Hitler, who declared that the American people are a decadent people, has found to his sorrow that his views were untrue, largely because the people of this free republic have lived close to the soil. There will be no decadence of Americans so long as they do not get away from the soil".

The Saturday night program was both informative and inspirational. H. H. Bennett, Chief of the U. S. Soil Conservation Service, said that if we could put in effect over night the

principles of soil conservation on the nation's 6,000,000 farms, we could add in use and production the equivalent of more than 1,000,000 additional farms without really adding a single acre and without any great increase in implements or labor. This is based on the fact that the application of the principles of soil conservation increases the production by a little better than 20 per cent.

The American farmer is doing something about it. He is cooperating with the Service and establishing Conservation Districts in which strip cropping, contour cultivation, use of terraces, crop rotation, installation of proper drainage systems, repairing gullies, stabilizing existing waterways to prevent washing, play an important part as well as the improvement of pastures and woodlots. Too few of us physicians realize that the health of a people depends upon the pastures of our land.

The evening was concluded with a brilliant inspirational talk by Louis Bromfield, writer and farmer, who said, in part, "Our habitation has been a wasteful one in this country. The average habitation of the American farmer, of the manufacturer, the average citizen, has not been a good one, an honorable one, or a wise one. The condition of the American farmer can be best illustrated by the kind of farmer who began in Pennsylvania, ruined a farm there, went to Indiana and ruined another farm. By that time his son went to Iowa and ruined one there, and his son or grandson ruined one in Washington or Oregon. And now there aren't any more. And because there are not any more, not only the farmer, but everyone of us has to take care of what we have.

"There are not any more—and that is a frightening statement, most of all to a gambling, wasteful, and I might almost say, sinful, people as Americans are. We have been given by God far too much and we have thrown it away as lavishly and as quickly as possible".

As we call for forage rich in these nutrients, we are making greater and greater demands upon our soils. We must, therefore, be prepared to return the minerals which we borrow, and practice the wise use and conservation of all of the vital elements, to the end that not only shall we have the health and the strength to win this war, but shall come out of it with a soil with which we can begin again to recreate the wealth of the United States which we love and for which we have fought. This means we must not lose any of the important nutrients from the soil that ensure us a succulent proteinaceous forage.—Jonathan Forman. *Soil Conservation*. 8:1943. June, pp. 267-270.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

THE FAMILY DOCTOR, THE PATIENT AND THE JOB

There are now official and unofficial sources of information through which physician and patient may usually find definite indications concerning which job is free from undesirable hazards. The official services include the United States Employment Service, which has branch offices in most population centers, and the State Vocational Rehabilitation Services. The United States Employment Service has the most complete and currently accurate information on what jobs there are in each community and on what physical performance is required in each job. It has originated a "Physical Demands Form", which is being used experimentally to determine required physical activity and working conditions. This type of job analysis explores especially such items as continuous standing, sitting, lifting, stooping, etc. One purpose of this information is to check the specific requirements of the job against the specific limitations of the handicapped applicant.

Interested physicians may obtain copies of interim physical requirement forms from the National Tuberculosis Association. The larger offices of the U.S.E.S. also include executives or interviewers who have some experience in special placements and who are qualified to discuss the subject of suitable placement for recovered patients with their physicians. The U.S.E.S. has placed thousands of inactive tuberculous patients in hundreds of different jobs. The suitability of these placements has depended most of the time on the quality and quantity of medical information available.

When the recovered tuberculous patient has no marketable skill, or when his old job is contraindicated medically, application for training or retraining and placement should be made to the State Bureau of Vocational Rehabilitation. Financed by State appropriations and Federal matching funds, these Bureaus are empowered to impart specific vocational training and placement to handicapped adults in order to make them self-supporting.

The physician will find in Federal Form R-3a (revised), published by the Federal Vocational Rehabilitation Bureau and in the manual prepared for its interpretation (Misc. 2328) practical bases upon which rehabilitation agent and physician may cohere their services for the patient.* The form and the manual are the result of many consultations between Federal rehabilitation per-

sonnel and members of the Council of the American Trudeau Society and other phthysiologists of long experience. Many state agents and supervisors have learned that, as the Federal manual points out, direct interview between physician and rehabilitation worker is the most satisfactory procedure for both.

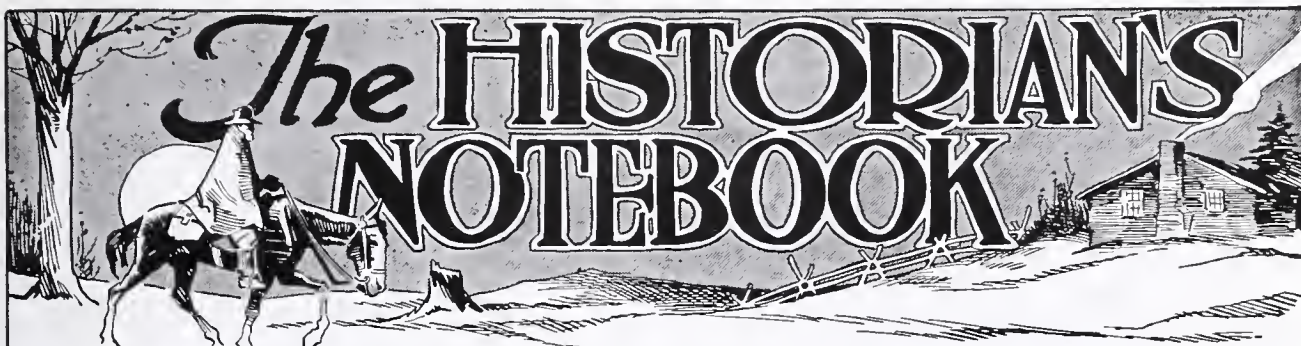
A number of the state and local tuberculosis associations have included rehabilitation in their program objectives. Some have employed special personnel competent to assist the patient in finding his way to appropriate training or placement or both. Rehabilitation workers employed by voluntary agencies are well aware that the patients of private physicians may have as much need for their services as the sanatorium graduate. The physician may find it well worth while to inquire from the nearest tuberculosis association what it has to offer in the direction of rehabilitation.

Both official and voluntary resources have been stimulated and encouraged by changing attitudes within industry. Not manpower shortage alone, but a cumulation of satisfactory performance by former patients, has done much to improve this situation.

The nation's leading personnel agency, the United States Civil Service Commission, has conducted surveys of jobs in several types of Federal services and in war-contract industries in search of jobs suitable for physically handicapped persons. Prospective employment for persons with a history of tuberculosis has been conspicuously included.

This precedent has been matched by action on the part of the National Association of Manufacturers. In the December, 1942, supplement of its Industrial Relations Bulletin, the N. A. M. indicated that various handicapped groups are a new labor source. Specific mention is made of employees who have suffered amputations, deafness, blindness, organic heart disease and tuberculosis. For each group, a partial list of suggested jobs is offered. The bulletin indicates that one of the parallel practices in employing handicapped workers calls for "careful selectivity in applying the handicapped man to a job which he can do".—F. L. Jennings, M.D., Supt. and Med. Dir., Sunnyside Sanatorium, Indianapolis, Indiana.

*Available from the Vocational Rehabilitation Bureau, Federal Security Agency, Washington, D.C., or through tuberculosis associations.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

An Ohio Naval Surgeon At Sea

PHILIP D. JORDAN, PH.D.

ON June 22, 1832, a young physician who had been practising in Lancaster after his graduation in 1830 from the Ohio Medical College in Cincinnati received a commission as surgeon in the United States Navy. Dr. Louis Wolfley immediately resigned his office as secretary of the Thirteenth District of the Medical Society of Ohio and journeyed to Norfolk to report aboard the *U.S.S. St. Louis*. It was not until October 31, however, that the *St. Louis* moved slowly out of Hampton Roads, and Wolfley began a medical career at sea which was to take him into the blue waters of the Caribbean, through the Mediterranean, and eventually into the South Atlantic. His ports of call were to include Barcelona, Toulon, Malta, Alexandria, the Cape Verde Islands, Port Praya, and Rio De Janeiro. His duties were to care for sick and wounded bluejackets.

During his cruises he came to know the cockpit at the foot of the main hatchway where naval surgeons were stationed when the call to action sounded; he filled prescriptions in countless small dispensaries, and he learned that the tourniquet was among the more important devices of the doctor at sea. Tourniquets were kept handy in almost every quarter of ships in order that wounded men might find them easily. He followed the daily routine of sick call when at nine his personal servant, a "loblolly boy," summoned men who needed medical care to the forward deck.

In general, sickness among sailors followed the humdrum of practice which Wolfley had found in Ohio. From November 19 to December 31, 1840, for example, Wolfley reported only 31 cases of illness. Among these were remittent fever, catarrhals such as influenza and bronchitis, pleuritis, both acute and chronic, tonsillitis, rheumatism, gonorrhea, contusions, incised wounds, and sea sickness. He reported also that "vaccination

The Author

● Dr. Jordan, Oxford, Ohio, associate professor of history at Miami University, is well-known to readers of "The Historian's Notebook." His story of Dr. Louis Wolfley is based upon original manuscripts, including Wolfley's letters and diaries, and upon a master's thesis by Howard Kramer which was done under Dr. Jordan's supervision.

was practised with matter obtained from several sources, but without success." In general, he classified his cases under three heads: fevers, inflammations, and local affections.

While a member of the medical staff of the *U.S.S. Delaware*, Wolfley was brought face to face with the dreaded cholera morbus. His ship was lying at anchor in Port Mahon in the Mediterranean, having gone there directly from Malta. The surgeon himself had just recovered from a slight case of smallpox when he was faced with cholera. His treatment of Asiatic cholera seems not to have varied. As the initial stages of the disease was marked by simple diarrhea, Wolfley prescribed moderate doses of one-half ounce of paragoric and tried mucilaginous drinks in an attempt to arrest the diarrhea before it advanced into the rice-water colored stage.

As the second stage became apparent, Wolfley noted the excessive vomiting, the cold extremities, the clammy sweat, bluish skin, and sunken eyes. Then the victim experienced muscle spasms and complained of severe cramps in the stomach. To alleviate these conditions, Wolfley reported that he prescribed five grains of calomel every 30 minutes. To counteract the influence of the calomel he ordered one-grain doses of opium or gave the patient a chalk mixture. Heat was ap-

plied to hands and feet and ice water was given orally. Opiated enemas and suppositories of opium and sugar of lead were administered in order to check excessive purging. As the final and fourth stage of cholera was primarily reaction which sometimes inflamed the liver and sometimes the brain, Wolfley treated these conditions in the usual manner prescribed for reducing inflammation. He bled, he advocated general and local purging, and he immersed his patients in warm baths. Despite this course of treatment, however, he saw 20 of his crew die within a few weeks.

DUTIES IN ADDITION TO TREATING SICK

In addition to treating the sick, Wolfley served as general health officer when aboard ship. Upon one occasion when he was cruising close to the eastern shore of South America his crew developed an alarmingly large number of sore mouths. The surgeon believed that the cause lay in the scuttlebutt where the daily supply of drinking water was stored. When he found that this reservoir had been cleaned only once since the ship cleared the United States, Wolfley ordered it drained. He found a deposit of mud at the bottom. When this was removed and the tank scrubbed, his mild epidemic of sore mouths disappeared. On another occasion, his crew lived on salt provisions for more than three months and developed scurvy. There was no way for ship surgeons to remedy this condition, but Wolfley ordered an extra allowance of water per day for each man.

Wolfley had another disagreeable duty. He was always ordered to stand by when the cat-o'-nine-tails was brought out and the cry went up, "All hands witness punishment." During his Mediterranean cruise he witnessed as many as 20 lashings a month. It was his belief, however, that whipping was one of the better forms of punishment. He even expressed his disapproval on the occasion that a sailor received only 20 blows. At another time he noted in his medical journal that the "boatswain-mate exerted his arm with unusual energy." He believed, however, that flogging was seldom necessary "when it is known by the men that offenses are certain to bring punishment."

Another cheerless duty which fell to the lot of the surgeon in the early navy was rounding up shore parties and treating sailors who had engaged in fights and brawls ashore. At Payta in South America one of his men was stabbed to death with a sword cane and others kept the surgeon busy mending broken heads, bandaging bruised bodies, and treating knife wounds. Then he was ordered out to bring the remainder of the liberty party back to ship. "It was an odd search," wrote Wolfley, "threading all the streets and by-lanes in the dead of night, pick-

ing up sailors from all kinds of conditions, and hauling them out of all sorts of places."

When he was transferred to the *U.S.S. Decatur* of the African Squadron in 1843, Wolfley predicted that he was aboard an unhealthy ship. The men could not be slung properly in their hammocks and many lay "strewed over the wet deck of the vessel." Below decks, the *Decatur* leaked so badly that her crew had to stand in six inches of water to bail. Bilgewater odor was so offensive that Wolfley wrote in despair that the "sulphuretted stink" was so strong "it blacks the paint in our rooms in a few hours." When his men were put on water rations of a gallon a day, they became irritable. Despite all this Wolfley could report a healthy crew when his vessel reached St. Vincent. Only one accident marred the whiteness of his report and that concerned a seaman who fell from his hammock, hit a point of the gun deck, and suffered internal contusions.

In addition to the innumerable duties already listed, Wolfley was responsible for other chores. A naval surgeon saw to it that sailors washed and aired their clothes and that they kept themselves clean. Upon many occasions the surgeon from Ohio acted as purchasing agent for the officers' mess. Ducks, turkeys, chickens, hogs, sheep, fruits and vegetables were bought by him and stored safely aboard. Frequently animals were kept in pens built near the main hatch. Only once did Wolfley object to this arrangement and that occurred when four bullocks were brought aboard for the men.

By summer of 1844 Wolfley had developed a mental condition which led him to write of a "little personal monitor" who whispered to him, warned him of his misdeeds, and chided him on his behavior. Soon the surgeon was holding animated conversations with this creature of his imagination. Subject to "frightful" nightmares, Wolfley dreaded the long nights and frequently would sit at his desk writing letters until exhaustion drove him to attempt rest. The "little monitor" was in his ears constantly, reminding him of every evil deed he had performed during his long career. Describing his own condition, Wolfley wrote: "Here I lay in bed with hands still clasped [from praying] horrible shudderings of cold passing over me and my mouth so parched that there was not a drop of saliva in it. He [the monitor] now presented Dives and Lazrus to me to bring to mind the suffering to the former. He said it was only a foretaste of what was to come and if I were to go up on deck and throw myself into the sea it would all be the same. Involuntary shudderings passed over me at the thought of committing that greatest of all sins: he would then have me everlastingly."

Unable, however, to remain in his bunk,

Wolfley would rush on deck, flinging his arms "like the paddles of a mill wheel," then walking slowly, then rapidly, and then with a hop-skip-and-jump. Finally, as the months moved on, the "little tempter" plagued the doctor during the day as well as at night. For a time Wolfley believed that he had only to shout "Clear out with you, you scamp," and his tormentor would disappear. By this time Wolfley's arm had become slightly paralyzed, and he pleaded with his commanding officer for a furlough. Although such a course of action was not possible, Captain Abbot decided to put his surgeon ashore in the custody of the United States agent for the Cape Verde Island. By June 13, 1844, Wolfley had become violently insane. He was placed in the guard house of the fort at Port Praya, and keepers were detailed to care for him. Early on the morning of July 21, the deranged creature escaped from his guards, rushed to the edge of a cliff, and plunged to his death on rocks eighty feet below. He was buried with full honors in the fort.

Dr. Wolfley was born at Elizabethtown, Pennsylvania, on February 14, 1807, and had emigrated to Ohio in 1819 where he and his relatives settled in Circleville. Related by marriage to Dr. William N. Luckey with whom he had made the trek across the mountains to the Buckeye State, young Wolfley soon became interested in the medicine of pioneer times. As the boy grew older he observed with interest the medication prescribed by Luckey, and it was not long before the lad knew the use of Peruvian bark, laudanum, tincture of benzoin, and balsam of sulphur. He was skilled too in rolling pills and preparing primitive drug mixtures. It was only natural that Wolfley should choose to follow medicine as a career. As the result of Luckey's competent instruction, Wolfley was licensed to practise medicine by the Censors of the Tenth Medical District in 1825. For a time Luckey and Wolfley practised together, but shortly after 1826 the latter registered at Ohio University where he remained for three years. During this period he also followed his profession. On November 2, 1829, however, Wolfley left Athens for Cincinnati where he enrolled in the Ohio Medical College.

The young physician learned most of his formal anatomy from Jedediah Cobb whose theatre was described as a most clean and orderly dissecting room. Charles Edwin Pierson taught *materia medica*. Other courses attended by Wolfley were chemistry, pharmacy, surgery, obstetrics, and the theory and practise of medicine.

After Wolfley's graduation in June, 1830, he moved to Lancaster where in a series of advertisements in the *Lancaster Gazette*, he announced his availability and "his professional services to the citizens of Lancaster, and vicinity." During

the late months of 1831 or perhaps the first of 1832, he made application for a commission in the Navy. The trials and tribulations of a frontier doctor did not appeal to him, he wished to see something of the world, and he hoped to have an opportunity to study medicine abroad. When, in 1832, he received notice of his acceptance, his joy must have been unbounded and he, perhaps, did not dream that he would end his life and his medical career far from Ohio and in a strange land.

The Ohio Valley Saffords

In the *Genealogy of The Ohio Valley Saffords*, it states that Dr. Jonas Safford of Gallipolis, Ohio, settled in Gallipolis in 1811. He was active in organizing the first Medical Society in Ohio and was an active member until his death in 1827. He came from Bennington, Vt., and studied several years under Dr. Fay of that place and who was his step-father. His own father was Dr. Challis Safford of Bennington, and whose ancestors were physicians for several generations. I have seen the license to practice in Vt. issued in 1784 by the County in which he lived in Vt. Said license was issued by the County Medical Society of that state and signed by the President and Secretary of said society.

At the instance of his brother, Col. Robert Safford of Gallipolis, he went to Gallipolis in 1811. Had a large family, two of whom were physicians, i.e., Dr. Elial Safford of Parkersburg, W. Va. (my grandfather), and Dr. Robert Safford of Putnam, Ohio (now a part of Zanesville). Said Robert Safford's first wife was a daughter of Attorney Judge Edwin Putnam, and was a grand-daughter of Gen. Rufus Putnam of Marietta, Ohio. My father was Dr. Howard Culbertson of Zanesville, Ohio (captain and surgeon, retired, U.S. Regulars, who died in 1890).

While speaking of County Medical Societies I desire to state that in the 1820's the Legislature enacted a law dividing the state into districts as I found on our County Deed Records and that licenses to practice medicine must be filed in every county in the state when issued by any county or district within the state.

I find one deed or license on file here issued by the First Medical District in Ohio: "Sept. 17, 1827, to Abel M. Lewis to practice medicine in Ohio, signed by Dr. Isaac Haugh, President and Dr. Guy W. Wright, Sec'y., at Cincinnati, Ohio."

Old county records show that in 1830 all physicians and lawyers in Ohio were assessed an occupational tax to help pay for the Ohio and Erie Canal built from 1825 to 1831. These assessments were still kept up as late as 1841 and one can thus obtain the names of physicians of those days.—L. R. Culbertson, M.D., Zanesville, Ohio.

Proceedings of The Council

Vital Governmental and Economic Questions Considered at Meeting Held on July 11; Policies Adopted on These and Other Matters

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Sunday, July 11, 1943, in the State Headquarters Office, Columbus, with the following in attendance: President Sherburne, President-Elect Schriver, Treasurer LeFever; Councilors Swartz, Messenger, Noble, Brindley, Rutledge, Lincke, Swan, and Harding; Dr. Hein, chairman, Committee on Public Relations; Dr. Forman, Editor of *The Journal*; and Executive Secretary Nelson.

President Sherburne opened the meeting by welcoming new members of The Council and requested confirmation of the appointment of two new members to the Committee on Industrial Health, viz., Dr. Clyde W. Dawson, Columbus, and Dr. F. G. Barr, Dayton. On motion by Dr. Brindley, seconded by Dr. Swan and carried, the committee appointments were confirmed.

On motion by Dr. Schriver, seconded by Dr. Messenger and carried, The Council expressed sympathy to Dr. McNamee, who was unable to be present due to the death of his mother, and instructed the Executive Secretary to transmit this expression of sympathy to him.

On motion by Dr. Harding, seconded by Dr. Lincke and carried, minutes of the last meetings of The Council held on March 30 and 31, 1943, were approved.

MEMBERSHIP DATA AND POLICIES

Membership Statistics—Total membership as of July 11, 1943—6,653, including 1,727 military members on whom dues have been waived. Total membership of the Association as of December 31, 1942—6,726; total membership as of July 11, 1942—6,536.

Prorating of Dues—The Council authorized the prorating of State Association dues for new members, not entitled to waiver of dues, as follows: \$5.00 for those affiliating between July 1 and September 30; \$3.00 for those affiliating between October 1 and December 31, 1943. This action was taken on motion by Dr. Schriver, seconded by Dr. Noble and carried.

Discharged Officers—The question of whether members leaving military or government service and re-entering private practice should be assessed dues was discussed. On motion by Dr. Harding, seconded by Dr. Rutledge and carried. The Council voted that such members should not be assessed State Association dues until the the beginning of the calendar year following

their discharge from the Armed Forces, or other full-time government positions.

Veterans' Administration—The question of waiver of dues for those affiliated with the U. S. Veterans' Administration Facilities was discussed. It was the sense of The Council that this question is adequately covered by the waiver of dues policy, viz., that those affiliated with the Veterans' Administration prior to the outbreak of the war are not entitled to waiver of dues, but that physicians leaving private practice to enter the service of the Veterans' Administration shall be eligible for waiver of dues for the duration of the war. This policy was adopted on motion by Dr. Harding, seconded by Dr. Lincke and carried.

FINANCES AND COUNCILOR REPORTS

Treasurer LeFever reported to The Council on conversion into cash of \$9,000 government bonds called June 15 and the deposit of such money into the checking account of the State Association to meet current expenses during the balance of 1943. On motion by Dr. Noble, seconded by Dr. Schriver and carried, the report of the Treasurer was approved.

Members of The Council then reported on visits to and activities of county societies within their respective districts. President Sherburne requested all members of The Council to keep in close touch with their county societies during the period of the emergency, stating that it is extremely important that all societies be kept alert and active at this particular time. It was suggested that members of The Council make a special effort to visit all county societies at the earliest possible time and discuss with them definite questions and policies, especially matters which have been considered by The Council and the various committees of the State Association. Ideas as to some of the questions which could be discussed with the county societies were presented.

REPORT ON A.M.A. HOUSE OF DELEGATES MEETING

Reports on the recent Annual Session of the House of Delegates of the American Medical Association in Chicago were presented by Dr. Hein, chairman of the Committee on Public Relations and an Ohio delegate; Dr. Sherburne, the President; and the Executive Secretary. Reference was made to the complete story on the meeting, published in the July issue of *The Ohio State Medical Journal*.

POLICY REGARDING MEDICAL SERVICES FOR WIVES
AND CHILDREN OF MEMBERS OF THE
ARMED FORCES

Dr. Hein, chairman of the Committee on Public Relations and Economics, presented a lengthy report containing recommendations on the question of medical and nursing services and hospitalization, including obstetrical and infant care, for wives and children of enlisted men in the Armed Forces.

The report, which was **adopted** by the Council without a dissenting vote, on **motion** by Dr. Brindley, seconded by Dr. Noble and **carried**, as the official policy of the Ohio State Medical Association, offered constructive suggestions as to ways and means of meeting this question and opposed the proposal of the Children's Bureau, U. S. Department of Labor, for the establishment of a medical program in Ohio to be financed with Federal funds and supervised by the Children's Bureau.

In adopting the report and recommendations of the committee, The Council made these stipulations: (1) that the Committee on Public Relations confer with representatives of the Army, Navy, and Air Force relief agencies and offer assistance in working out a plan in accord with the recommendations contained in the report; (a) that State Director of Health Markwith and others who may have an interest in the question, be invited to participate in such conference; (3) that copies of The Council's action and the report be transmitted to Governor Bricker, the American Medical Association, all county societies in Ohio, and other state medical associations.

See pages 762-764, this issue, for complete text of report and statement of policy.

RURAL MEDICAL SERVICE PLAN

On behalf of the Committee on Public Relations and Economics, Dr. Hein reported on a series of conferences which the committee has had on matters relating to the establishment of a prepayment medical service plan for farmers in Logan County. Reference was made to reports which have been submitted to the committee by Dr. Carll S. Mundy, Toledo, representative of the Ohio State Medical Association on the Ohio Land-Use Planning Committee, Sub-Committee on Health, and to conferences held with a committee of the Logan County Medical Society. Dr. Hein reported that the Ohio Land-Use Planning Committee is anxious to establish, on an experimental basis, a prepayment medical care plan in that county, although it has no definite ideas as to how such plan should be organized and operated. He referred also to plans which have been suggested by the U. S. Department of Agriculture and the Farm Security Administration.

Dr. Hein reported quite extensively on a meeting of the Public Relations Committee held on July 10 and which was attended by a committee from the Logan County Medical Society. He stated that it was the sense of the Public Relations Committee that it would be advisable for the Ohio State Medical Association to take an active interest in the development of a medical service plan in Logan County under the terms of the Ohio Enabling Act, providing this has the approval and active support of the Logan County Medical Society. To bring this before The Council for action, Dr. Hein presented the following recommendation which had been approved by the committee:

"That The Council authorize the use of an amount, not to exceed \$15,000, from the reserve fund of the Association for the organization and establishment of a medical service plan in Logan County under the terms of the Ohio Enabling Act, providing the establishment of a plan in that county has the approval and active support of the Logan County Medical Society; that \$10,000 of this amount would be advanced for the purpose of meeting the financial provisions of the Enabling Act and that the balance would be used under the direction of the Committee on Public Relations and Economics for preliminary organizational work and activities."

In submitting the above recommendation, Dr. Hein pointed out that the question will be discussed by the Logan County Medical Society as soon as that society is informed as to what assistance, financial and otherwise, the Ohio State Medical Association will contribute.

Following a general discussion, on **motion** by Dr. Lincke, seconded by Dr. Swartz and **carried**, The Council without a dissenting vote **adopted** the foregoing recommendation of the committee and instructed the President and the Committee on Public Relations to make suitable arrangements for presentation of The Council's action at an early meeting of the Logan County Medical Society.

SUPPLEMENTAL REPORT OF COMMITTEE ON
PUBLIC RELATIONS

A report on the following matters which had been considered by the Committee on Public Relations was presented and, on **motion** by Dr. Rutledge, seconded Dr. Noble and **carried**, the report and the actions of the committee were **approved**:

H.R. 2935—The committee reported that it had been requested by the Bureau of Legal Medicine and Legislation of the A.M.A. to file a protest against an amendment to H.R. 2935, United States Congress, which amendment stipulates that any person licensed to practice obstetrics in any state shall be permitted to participate in maternity programs of the U. S. Children's

Bureau and precluding the expenditure of Federal money by the Children's Bureau for maternal care in any state where such provision is not complied with. It was reported that the committee unanimously decided that the Ohio State Medical Association should not protest the adoption of this amendment, which subsequently was inserted in H.R. 2935 by the Congress and is now a law. The committee stated that it felt that any person legally licensed to practice obstetrics in Ohio (a doctor of medicine or an osteopathic physician) should be permitted to participate in any program of obstetrical care, whether state, local or Federal, providing participation would not increase in any way the legal rights or the privileges of any such practitioner. It was revealed that all doctors of medicine legally licensed to practice in Ohio are permitted to practice obstetrics, and that since 1912 osteopathic physicians have had the legal right to practice obstetrics.

Physical Fitness and Recreation Program—There was a discussion of the report submitted by Dr. J. W. Wilce, Columbus, representative of the Ohio State Medical Association on the State Committee on Physical Fitness and Recreation, sponsored by the State Department of Education in conjunction with the Federal Department of Education and the Office of Civilian Defense. The following recommendation on this matter was made by the committee:

That every effort should be made to stimulate active interest in this question among the various county medical societies and that a request should be filed for more adequate representation of the medical profession on the advisory and executive committees of the state committee. It was suggested that the State Director of Health should be named on the Executive Committee and that representatives of the following organizations should be appointed to such committee: Ohio Student Health Association, American Association of School Physicians, and the Ohio State Dental Society. In making this report, the committee pointed out that the purposes and objectives of the Committee on Physical Fitness and Recreation extend into the field of health education and medical activities and that it was the sense of the committee that such activities should be under the supervision and guidance of the medical profession through proper committees and representatives of county medical societies.

Transient Farm Laborers—Dr. Hein reported that the committee had received a report from Dr. Sherburne, the President, on a conference which he attended in Chicago of representatives of various Middlewestern states for the purpose of discussing with representatives of the Farm Security Administration the establishment of an emergency medical program in such states for

transient farm laborers. The report pointed out that, as yet, the committee had been unable to obtain information on how many transient farm laborers there are in Ohio and that to date the committee had not been informed of any cases where transient farm laborers had been unable to obtain emergency medical services through existing conditions. For these reasons the committee reported that it was the sense of the committee that if and when this problem becomes acute in Ohio, and, if and when, it is felt that emergency medical services for transient farm laborers cannot be provided in a satisfactory manner in this state by either local or state agencies, or on a voluntary basis by physicians in private practice, the Ohio State Medical Association will then consider the possibility of participating in the Farm Security Administration proposal to establish a non-profit corporation to handle Federal funds to be used for compensating physicians and hospitals for medical and hospital care for transient laborers.

Old Age Pension—It was reported that the committee had authorized Chairman Hein to appoint a sub-committee for the purpose of arranging and participating in a conference with representatives of the Division of Aid for the Aged to discuss medical problems of recipients of aid for the aged in compliance with Resolution B, adopted by the House of Delegates of the Ohio State Medical Association at its 1943 Annual Meeting.

Blue Cross Plans—Dr. Hein reported that the committee had discussed plans being considered by the Blue Cross Hospital Plans relating to the possibility of extending coverage of Blue Cross policies to include medical services or to the establishment of an insurance company for the purpose of writing medical and surgical reimbursement benefits. The committee recommended no action at this time, but stated that it would keep in touch with representatives of the Blue Cross Hospital Plans on these matters.

REPORT OF JUDICIAL AND PROFESSIONAL RELATIONS COMMITTEE

On **motion** by Dr. LeFever, seconded by Dr. Brindley and **carried**, the following report of the Committee on Judicial and Professional Relations Committee was **approved and adopted** as the official policy of the Ohio State Medical Association. The committee was complimented on the report and the Executive Secretary was instructed to send copies of the report to each Councilor who, in turn, would transmit a copy to the president and secretary of each county medical society in his district.

TEXT OF REPORT

Periods of emergency and readjustment, such as the one in which we are living, always are accompanied by confusion, misunderstandings and,

occasionally, hasty, unwise action. This is borne out by some of the problems which have been submitted to The Council during recent months by county medical societies and individual physicians, seeking advice and guidance.

Among the questions which have been submitted to The Council for consideration are several involving membership in medical organization. These questions demand interpretations of the Constitution and By-Laws of the Ohio State Medical Association and similar documents of local medical societies. Also, they involve an analysis of legal, ethical, professional and moral principles and implications.

For the past several months the Committee on Judicial and Professional Relations has had these matters under advisement at the request of The Council. The committee believes that it is the responsibility of The Council to offer suggestions and advice on such questions, keeping in mind, of course, that the constitutions and by-laws of the State Association and the respective component medical societies are the basic laws governing the conduct of a medical society but also bearing in mind that wisdom and fairness must be exercised in the application of such governing provisions.

Your committee offers the following recommendations on three specific questions which have been studied and suggests, if they are approved by The Council, that The Council's action be transmitted to all county medical societies for their information and guidance:

1. Several physicians who are licensed to practice medicine and surgery in Ohio have complained to The Council that they have made application for membership in a county medical society and that their applications have been rejected, which of course deprives them of membership in the state and national societies.

Article 8, Section 1 of the Constitution and By-Laws of the American Medical Association states that "members in good standing of the constituent associations holding the title of doctor of medicine or bachelor of medicine are the members of the American Medical Association".

Article 4, Section 2 of the Constitution and By-Laws of the Ohio State Medical Association states that "the members of this Association shall be eligible physician-members of the component societies, as further defined in the accompanying By-Laws, who have been certified by the designated officer of the component society, and whose dues and assessments for the current year have been received at the headquarters of this Association".

Chapter 1, Section 4 of the By-Laws of the State Association sets forth the requirements for eligibility for membership in the Ohio State Medical Association, i.e., citizenship or declaration of intention to become a citizen by filing first citizenship papers with the United States Government; possession of a license to practice medicine and surgery in Ohio; and possession of the degree of doctor of medicine or some foreign degree in medicine regarded by The Council of the Ohio State Medical Association as equivalent thereto.

Chapter 11, Section 1 of the By-Laws of the Ohio State Medical Association reads in part as follows:

"Each component society shall judge of the qualifications of its members. Every reputable physician who does not practice or profess to practice sectarian medicine, who is a bona fide

resident of the county, and who possesses the qualifications enumerated in Chapter 1 of these By-Laws may be considered eligible for election to membership."

Careful reading of the above sections reveals conclusively that the county medical society of the county of which a physician is a bona fide resident is the judge of the qualifications of a physician-applicant and has the right to accept or reject such physician's application for membership. Neither The Council nor any other agency of the Ohio State Medical Association has the authority to compel a county medical society to accept or reject an application for membership. That is the responsibility of the county medical society unless or until the present provisions of the Constitution and By-Laws are modified. We do not recommend any change in the present provision. In fact, we believe that the present provision placing the responsibility on the county medical society is sound.

However, we are of the opinion that it is unwise for a county medical society to abuse the power which has been delegated to it or to take prejudicial action on a question of such vital importance, not only to an individual physician but to medical organization as well. The fundamental structure of medical organization is democratic in every sense of the word. Our democratic form of organization could be destroyed by hasty and unwise action on the part of those who enjoy the benefits of membership.

To be more specific, when a county medical society has before it the question of deciding whether it believes a certain physician should be extended membership privileges, it would be well for the society to bear in mind that if the physician making application can meet the qualifications set forth in Chapter 1, Section 4 of the By-Laws of the Ohio State Medical Association, it may be assumed that he has satisfactory education and mental fitness to practice medicine in Ohio. Obviously, the candidate's ethics, moral character and general reputation in the community must be carefully investigated but such investigation should be conducted from an impersonal viewpoint and in a fair, democratic manner. We are not advocating that a county society let down the bars to those who are incompetent or unqualified but we do appeal to all county societies to use sound judgment and fair play in such procedures.

If an applicant has not lived in the community sufficiently long to have established his reputation, the society should consider the feasibility of accepting him into membership on probation for a definite period. During that time the physician will have an opportunity to become acquainted with the accepted customs and practices of the community and to seek the advice and counsel of members of the society. Moreover, a county society should realize that there is ample power in its constitution and by-laws to discipline or expel any member who does not practice ethically and whose general conduct is unbecoming a member. We are inclined to believe that this power is used too sparingly in some communities, but that does not mean that the power is not there to be used at the appropriate time.

2. The Council has been informed that a number of county medical societies have adopted resolutions providing that the society shall not accept into membership any new member for the duration of the war and six months thereafter.

Your committee strongly condemns this policy. It has been stated that the primary reason for this is to protect the status of the men who have made a great personal and financial sacrifice by entering active military service. This argument does not appeal to us as either sound or logical. In the first place, barring of a licensed physician from membership does not in any way preclude him from locating within a county and engaging in the practice of medicine. Secondly, it was shown at the end of World War 1 that a considerable number of physicians when discharged from military duty do not return to their former locations.

The primary objections to such a policy are as follows: It is not necessary as the county society under its constitution and by-laws has ample power to reject an applicant if in its opinion he is not qualified for membership. It would bar from membership well-qualified physicians who are an asset to the community and would be an asset to the society. It might prevent a well-qualified physician from obtaining a commission in the armed forces. The Navy will not offer a commission to a physician unless he is a member in good standing in a county medical society. While the Army does not make membership in a county medical society a qualification for a commission, it does scan very critically the applications of men who cannot furnish this qualification. Such a policy would appear to be in conflict with the provisions of the Constitution and By-Laws of the State Association which imply that an applicant who can meet certain basic qualifications shall be given the opportunity of filing an application for membership and having it disposed of one way or the other in the proper manner by the county medical society.

In general we are of the opinion that "freezing" of membership through the adoption of a blanket resolution is against the best interests of medical organization, is a violation of the letter and spirit of the Constitution and By-Laws of the State Association, and is quite likely to cause a bad reaction on the part of the public. County medical societies should select members on the basis of individual qualifications, giving each man who can meet the basic requirements the right to have his application passed upon by the membership of the society.

3. A question as to whether membership in a county medical society should be a requirement for membership on the staff of a hospital also has arisen in connection with the other matters under consideration.

The question of who shall or shall not be given the privileges of a hospital is one which must be decided by the governing board or administrative official of the hospital. A physician who is incompetent, immoral or unethical should be excluded from the staff of any hospital irrespective of whether he is or is not a member of a county medical society. If a physician is not a member of the county medical society because the society for some obscure reason or because of some policy of blanket exclusion of new members, referred to above, has not voted him into membership, this does not necessarily mean that he should be refused the privilege of practicing in a hospital, or hospitals, in the community.

We are of the opinion that selection of physicians for hospital staffs should be based on the individual qualifications of each physician and his personal and professional reputation. It is true

that in most instances, a physician who fails to receive the approval of a county medical society when applying for membership is in all probability not qualified for membership on a hospital staff. However, there may be, and probably are, exceptions to this general observation which puts it squarely up to the governing officials of a hospital to decide each case on its merits.

In the final analysis, a hospital is expected to meet community needs and to see that those rendering services within the institution are competent and ethical practitioners. It is the tacit responsibility of the county medical society to cooperate with hospital officials on this, as well as other matters affecting the relationship between the hospital and the public and the medical profession and the public, but this does not relieve the hospital from its legal responsibility in selecting its staff and making its selections on the basis of the individual qualifications of all physicians of the community.

In conclusion, your committee wishes to re-emphasize that nothing in this report should be construed as an argument in favor of lowering the qualifications which a physician should possess in order to obtain admission to a county medical society. In fact, we feel that membership in a county society should have more value and mean something more than it does at present. Some physicians regard membership in medical organization too lightly and as a right, rather than a privilege. Some members not only fail to contribute anything to the work and programs of their county medical society but disregard the ethical principles which all members are expected to observe. Such offenders should be disciplined.

Unity of purpose on the part of the medical profession is imperative if the profession is to solve present-day problems of vital importance to itself as well as the public at large. All members should take a more active interest in the affairs of their respective society. Group thinking and group action are needed. We cannot successfully attack the present complicated questions, and those which will arise in the post-war era, if so many of our members continue to take an individualistic attitude toward those affairs which are of such vital concern to the profession as a group. The membership of all county medical societies must be knit closer together. All eligible physicians should be accepted into membership. Prejudices, personalities, bickering, jealousies, selfishness, etc. must be shelved for they are serious obstacles to our achieving that unity of purpose and action which we must have to meet the troublesome years ahead.

MISCELLANEOUS BUSINESS

On behalf of Dr. Robert Conard, chairman of the War Participation Committee, who could not be present as he was attending a meeting of the Procurement and Assignment Committee for the Fifth Service Command in Louisville, the Executive Secretary reported on activities of that committee and the Procurement and Assignment Committee. It was reported that questionnaires had been received from approximately 5,900 Ohio physicians and that cards with pertinent data had been filed on such physicians. It was reported that as of July 3, 1943, 2,514 Ohio physicians

were known to be in military service or on full-time emergency governmental services. In the near future County War Participation Committee chairmen will be asked by the committee to assist in obtaining biographical and professional data on approximately 600 Ohio physicians who have not returned a questionnaire. Reference was made to the present recruiting program whereby Ohio hopes to meet its quota of medical officers for 1943.

Reference was made to the untimely deaths of three former Past-Presidents: Dr. Wm. H. Humiston, Dr. Ben R. McClellan and Dr. R. R. Hendershott. By unanimous vote The Council adopted a resolution of sympathy and regret at the loss of the active services and interest of these former officials of the Association.

To guide the Executive Secretary and Managing Editor of *The Journal* on questions of advertising policy and exhibits, on motion by Dr. Brindley, seconded by Dr. LeFever and carried, the existing policy on these matters of the Association was reaffirmed, viz., that advertising not approved by the proper agency of the American Medical Association, including the Cooperative Medical Advertising Bureau, shall not be published in *The Ohio State Medical Journal*, and that the same policy shall apply with respect to technical exhibits.

On motion by Dr. Rutledge, seconded by Dr. Brindley and carried, the Executive Secretary was authorized to make a contribution of \$25.00 from the State Association to the newly-formed Medical Service Plans Council of America to assist that organization in carrying on the collection of pertinent information on medical service plans and the dissemination of such information to interested groups and organizations.

A letter from C. C. Little, Sc.D., Managing Director of The American Society for the Control of Cancer, urging the medical profession to continue to give guidance and direction to programs of cancer education, was read and ordered filed.

The Executive Secretary presented a brief report on the recent session of the Ohio General Assembly, referring to the article published in the July issue of *The Ohio State Medical Journal*.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

The Southern Medical Association has accepted the invitation of the Campbell-Kenton County Medical Society of Kentucky, to hold its annual meeting in Cincinnati on November 16-18. The Academy of Medicine of Cincinnati will act as co-host.

OPA Makes New Rulings of Interest To Physicians

Of interest to physicians is Amendment 34 to Ration Order 16 and Amendment 25 to General Ration Order 5 issued by the Office of Price Administration under date of June 1, which places evaporated and condensed milk on the list of rationed products.

These types of milk are added to the group of rationed foods containing meats and fats, for which red ration stamps are needed, without any increase in the total number of points allowed for this group. One point is required for one 14½-ounce can or for two 6-ounce cans or for two 8-ounce cans.

Translated into feeding schedules, this means that the infant or child may use 7 of his 16 points per week for his milk requirements in terms of evaporated milk which allows slightly less than the equivalent of a quart of whole milk per day, and have 9 points remaining for his meat and fat requirements.

An invalid or any other person whose health requires that he have more canned milk than he can obtain with the stamps in his War Ration Book II, may apply at his local War Price and Rationing Board for additional points under Section 2.4 or Ration Order 16. The consumer must submit a written statement of a licensed physician showing why the consumer must have more canned milk, the amount needed during the succeeding two months and why unrationed foods cannot be used instead. The Office of Price Administration also has issued an amendment to Ration Order No. 16 (R. O. 16, Amendment 25) which permits the use of rationed fats and oils for external therapeutic purposes. This includes the use of vegetable oils, such as cottonseed oil, for bathing newborn infants, for external application in skin diseases, especially eczema, for urethral injection or lubrication of urethral instruments, and for X-ray visualization.

Such use of rationed fats and oils is defined as "industrial consumption". Persons using these products for such purposes are classified as "industrial consumers". An industrial consumer engaged in the care and treatment of the sick and needing rationed fats and oils for this purpose may apply to his district Office of Price Administration for a certificate with which to acquire them.

Dr. Ward D. Coffman, Zanesville, is the new chairman of the Ohio Public Health Council. Other members are: Mrs. Alice LaCoste, Toledo; Dr. H. R. Hoffman, Cleveland; Dr. Russel G. Means, Columbus; Dr. S. F. Ridings, Greenville, and William Helmer, Cincinnati. The latter is on leave of absence during service in the U.S. Navy.

Council's Statement Opposes Children's Bureau Proposal For Medical Program for Families of Service Men But Offers Sound Plans For Meeting Needs If They Arise

A STATEMENT OF POLICY, recommending methods of assisting needy wives and infants of enlisted men in the armed forces to obtain financial assistance for medical and nursing services and hospitalization, if the need for such financial assistance arises, and opposing a plan proposed by the United States Children's Bureau for the establishment of a Federally-financed and supervised medical program in Ohio for this purpose, was adopted by The Council of the Ohio State Medical Association on July 11, 1943.

The Journal urges all members of the Association to study carefully the report of the Committee on Public Relations and Economics and The Council's action, on this vital question.

Special attention of all physicians is called to Paragraph 1 of the recommendations, urging the medical profession to meet its traditional obligation to supply necessary medical care to all, irrespective of their ability to pay for such care.

In adopting the committee's report, The Council made the following stipulations: (1) That the Committee on Public Relations and Economics confer with representatives of the Army, Navy and Air Force relief agencies and offer assistance in working out a plan in accord with the recommendations contained in the report; (2) that the State Director of Health Markwith and others who may have an interest in the question be invited to participate in such conferences; that copies of The Council's action and the report be transmitted to Governor Bricker, the American Medical Association, all county medical societies in Ohio and other state medical associations.

TEXT OF REPORT AND COUNCIL'S ACTION

At a conference held in Columbus on Saturday, June 19, 1943, the Committee on Public Relations and Economics discussed with Dr. R. H. Markwith, State Director of Health, a proposal suggested by the Federal Government, that there be established in Ohio a program to provide medical and hospital maternity and infant care for the wives and infants of enlisted men in the armed forces of the United States.

Such a program would be financed by the Federal Government through money allotted to the state by the United States Department of Labor. The State Department of Health through its Division of Child Hygiene and other divisions would administer the program in Ohio under general procedures, policies and regulations promulgated by the Children's Bureau, United States Department of Labor.

BASIS OF NEED IGNORED

Any wife of any enlisted man of the fourth, fifth, sixth and seventh grades irrespective of legal residence or of financial status, on application, would be eligible to receive medical and hospital maternity care, including antepartum examinations, delivery, postpartum care and postpartum examination at the expense of the Federal government under the proposed program. Children of such women under one year of age would be eligible to receive medical, hospital and nursing care, when ill, under the same conditions. In making application to receive such care for herself and child, or children, the wife of the enlisted man could select a physician and hospital willing to participate in the program, but the physician or hospital selected would have to certify that he or it will provide the services

authorized at a stipulated fee set forth in the proposal, without additional payment from the patient or other persons.

MAXIMUM FEE SCHEDULE SET

A stipulated schedule of fees for the medical and hospital services, as well as nursing services, would be established. It is proposed that the inclusive rate to be paid a physician for complete medical services during the antepartum, labor and puerperium would be \$35.00. The services would include antepartum examinations, delivery, postpartum care and postpartum examination approximately six weeks after delivery, and routine blood test for syphilis, hemoglobin determination and urinalysis. Whenever the physician doing the delivery would not give antepartum care, he would be paid \$25.00 for delivery and postpartum care. Whenever less than five antepartum examinations were made, the physician would be paid at the rate of \$2.00 per examination. Five or more examinations would be paid for at the flat rate of \$10.00 per case for antepartum care. Fees of \$10.00 for consultation, \$25.00 for minor surgery and \$50.00 for major surgery are proposed. Initial authorization for medical care for sick infants would cover a period not to exceed three weeks and payments would be as follows: home or hospital visit, \$3.00; office visit, \$2.00, with the total amount authorized not to exceed \$20.00. Provision for authorization for additional services for infants is incorporated in the proposal. The proposal also contains rules and stipulated fees for nursing services and hospitalization.

An appropriation of approximately \$6,000,000

to finance this program throughout the entire country has been requested from the Congress.

ACTION OF A. M. A. CITED

Since the conference on June 19, your committee has analyzed the following reference committee report on this subject, adopted without a dissenting vote by the House of Delegates of the American Medical Association in session on June 8, 1943, in Chicago:

"Resolutions expressing approval of Federal assistance to wives and children of service men as outlined in plan under consideration by the Federal Children's Bureau, introduced by Dr. John H. Fitzgibbon, Oregon: Your reference committee recommends (a) that the action of the federal government in making funds available for maternity and infant care for the wives and infants of enlisted men be approved, and (b) that adoption be urged of a plan under which the federal government will provide for the wives of enlisted men a stated allotment for medical, hospital, maternity and infant care, similar to the allotments already provided for the maintenance of dependents, leaving the actual arrangements with respect to fees to be fixed by mutual agreement with the wife and the physician of her choice."

ARMY EMERGENCY RELIEF AGENCY

Moreover, since the meeting on June 19, members of your committee and several members of The Council of the Ohio State Medical Association have conferred with Army officers charged with the responsibility of administering the program of a corporation known as Army Emergency Relief. Contacts have not been made as yet with officials of similar organizations functioning for the Navy and the Air Force.

Army Emergency Relief is a corporation formed in the District of Columbia in February, 1942. Its purpose is set forth in its certificate of incorporation as follows:

"The particular business and object of said corporation shall be to collect and hold funds and to relieve distress of personnel of the Army of the United States and their dependents, including dependents of honorably retired or discharged and deceased personnel thereof, to provide for their education and to secure employment for honorably retired or discharged personnel and their dependents, and the dependents of deceased personnel."

General supervision of the activities of the branches and sections to which the administration of Army Emergency Relief is decentralized throughout the Army, and the control of funds, are important military duties delegated to commanders concerned. General Wallace, commanding general of the Fifth Service Command, is the officer controlling administration of the organization's program of relief and assistance in Ohio, Kentucky, West Virginia and Indiana.

FUNDS ARE AVAILABLE

Army Emergency Relief and the American Red Cross have adopted a working agreement with respect to the handling of details in rendering assistance to the families of personnel of

the Army. A substantial fund is in possession of Army Emergency Relief for carrying out its purposes, the money having been raised through special fund-raising activities, revenue from events of various kinds and miscellaneous contributions from patriotic and public-spirited citizens.

The funds of Army Emergency Relief may be used for financial assistance in the form of a loan, cash grant or relief in kind for families

Dr. Markwith Accepts Recommendation of The Council

Following is the text of a letter, dated July 19, received by The Council from Dr. R. H. Markwith, State Director of Health:

"I have received your letter of July 12 to which you have attached a 'Statement of Policy Adopted by The Council, Ohio State Medical Association, on July 11, 1943, Recommending Methods of Assisting Wives and Infants of Service Men to Obtain Financial Assistance for Medical and Nursing Services and Hospitalization in Ohio, and Opposing Plan Proposed by the Children's Bureau, United States Department of Labor.'

"I wish to advise you that I will comply with the recommendations of The Council of the Ohio State Medical Association by not placing into effect the proposal which has been submitted by the Children's Bureau to Ohio, pertaining to the emergency maternity and infant care program.

"I will accept your invitation to participate in conferences of the Committee on Public Relations with representatives of the Army, Navy and Air Force Relief Agencies, for the purpose of developing a plan in accordance with the recommendations contained in the report of The Council of the Ohio State Medical Association.

"I hope a satisfactory program may be developed in the near future in Ohio for providing emergency maternity and infant care to wives and infants of men in the armed forces."

of Army personnel who are in need of assistance. Financial assistance for medical and nursing services and hospitalization is considered one of the most important phases of the program of the organization.

WANT PROFESSION'S COOPERATION

Officials consulted on this matter state that financial assistance for medical and nursing services and hospitalization is at present being provided to eligible families. It is their opinion that this program of assisting such families who are in need of medical and nursing services and hospitalization, including obstetrical services of wives of soldiers and medical care for the children of soldiers, can, and should, be expanded. They welcome the assistance and cooperation of the medical profession of Ohio in making this program of greater practical value. Obviously, the funds of Army Emergency Relief are not un-

limited as to amount but it is felt that the organization is in a position to meet the needs of deserving cases if accorded real cooperation on the part of physicians, nurses and hospitals.'

APPEAL TO EVERY PHYSICIAN

Based on the conferences referred to and after a careful study of the questions which have been discussed, your committee makes the following recommendations for consideration of The Council:

1. The Ohio State Medical Association is fully aware of the fact that it is the obligation of the medical profession to see that all persons residing in Ohio, whether temporarily or permanently, receive necessary medical care, including the wives and children of personnel of the armed forces. Although we have reason to believe that this obligation will be met irrespective of the ability of an individual to pay for such services, the Association makes a special plea to its members to see that the traditional policy of the medical profession that all persons regardless of financial status shall be provided with an opportunity to utilize the advantages of modern scientific medicine is complied with at this time.

The Association realizes that it may not be possible for the medical profession to carry out the above recommendation if there should be a large number of cases ineligible to receive assistance under existing public assistance programs. Therefore, it is conceded that some plan to assist the medical and nursing professions, and hospitals, may be needed in the near future.

2. Therefore, this Association should cooperate with Army Emergency Relief in furthering its program of providing financial assistance for the families of Army personnel needing such assistance for medical and nursing services and hospitalization. The same offer of cooperation should be extended to similar agencies of the Navy and the Army Air Force. These agencies were established for the purpose of assisting families of personnel of the armed forces in providing necessities of life, including medical and nursing services and hospitalization. They have funds which would appear to be sufficient to meet current requests for assistance and a considerable number of additional requests. If this procedure can be worked out satisfactorily—and we believe it can—there will be no necessity for the use of public funds or the maintenance of a government-controlled medical program to furnish medical care for the wives and children of service men.

3. It is recommended that Army Emergency Relief and similar agencies of the Navy and Air Force in providing financial assistance to the families of service men so they may obtain necessary medical and nursing services and hospitalization should make such assistance available in the form of a loan or cash grant. This will enable the wife to make her own arrangements with respect to fees, services, etc., with a physician of her own choice for herself or children.

4. In event the funds of the relief agencies of the Army, Navy or Air Force are found inadequate to provide assistance for all worthy cases, we would then favor the adoption of a plan under which the Federal Government would provide financial assistance by making a stated cash allotment for medical and nursing services and hospitalization to the wife and children of enlisted men on the basis of need. This would be

similar to the present arrangement under which cash allotments are provided for the maintenance of dependents of service men. If such a plan should become necessary, we feel that it would be desirable for this Association to bring the matter to the attention of Ohio's representatives in the United States Congress and urge them to sponsor legislation to provide the necessary funds and distribution of such funds as suggested.

5. The Association is opposed to the proposal sponsored by the U.S. Children's Bureau and urges the State Director of Health of Ohio not to put such plan into effect in Ohio for the following reasons:

(a) There appears to be no need for the Children's Bureau program as we are confident that the relief agencies of the Army, Navy and Air Force can provide adequate financial assistance for needy cases.

(b) The Children's Bureau plan would provide assistance in the form of medical and nursing services and hospitalization irrespective of need.

(c) It would not provide the wife of an enlisted man with the unrestricted freedom of choice of physician, nurse or hospital for herself and children as the choice could be made only from among those willing to participate in a governmentally-administered medical, nursing and hospital program.

(d) It would establish a medical, nursing and hospital program under control of the Federal Government, even though it would be administered directly by the State Department of Health, as the latter would be subjected to the policies and regulations of the Children's Bureau at Washington.

(e) It would preclude assistance on the part of relatives and friends of the families of service men as well as voluntary relief and welfare agencies, any or all of whom might be willing, and in a position, to provide assistance in worthy cases.

(f) It would establish a mandatory, inelastic maximum fee schedule for professional fees and hospitalization regardless of the merits of individual cases and circumstances involved.

(g) It would place a third party, namely a Federal agency, virtually in control of medical services and inject a third party into the relationship between physician and patient.

(h) It would establish the base for a much larger Federally-controlled medical care program to cover all classes of citizens, not only the families of men in the armed forces.

(i) It would have a tendency to reduce the quality of the services rendered—a tendency ever present in bureaucratic programs which place administrative controls and red tape and occasionally political interference, between the producer and recipient of professional services.

New WLW Health Program

Starting June 19 a revised second edition of "Your Health" was launched by Radio Station WLW, Cincinnati. The program, which has been presented for several years by Dr. Carl Wilzbach, health commissioner of Cincinnati, in cooperation with the Cincinnati Academy of Medicine, Public Health Federation and Board of Health, is on the air every Saturday at 9:45 A.M., Eastern War Time.

Facts and Figures on the Need for Medical Officers; How Recruiting Program Operates; What Is Expected of Ohio

IN THE JULY issue of *The Ohio State Medical Journal* reference was made to the continuing need for medical officers in the armed forces and to the new recruiting program under way in Ohio.

To reiterate information which has been published, to re-emphasize the need for medical officers, and to answer some of the many questions which have been asked by physicians, the Ohio Procurement and Assignment Committee has prepared the following questions and answers for *The Journal*. If those having inquiries do not find the answers below or they would like to have more detailed information, they should write Dr. Robert Conard, Chairman, Ohio Procurement and Assignment Committee, 1005 Hartman Theater Building, Columbus 15, Ohio.

What is the present need of the armed forces for medical officers?

Approximately 8,300 medical officers are needed by the Army alone. No figures are available as to the need of the Navy but it is conservatively estimated at more than 1,000. These figures do not include those who have been commissioned since January 1, 1943.

Has the recruiting of medical officers during the first six months of the year come up to expectations?

No. The recruiting of medical officers has lagged. It has been a disappointment to the armed forces and to the Procurement and Assignment Service.

How will the need for medical officers be supplied?

Primarily from physicians of military age in civilian practice who can be spared from their present locations. It was contemplated at the first of the year that about one-third of the 1943 quota would be met from interns and residents. A large proportion of the physicians commissioned so far this year have been interns or residents. Therefore, a large part of the number needed will be physicians now engaged in active practice.

How many medical officers will Ohio be expected to supply?

Because of the over-all need of the armed forces for medical officers as a result of increases in Army and Navy personnel, every

Ohio physician under 45 years of age who can be spared from civilian, industrial or institutional practice must be classified as a potential medical officer and should apply for a commission at the earliest possible date. At present, the Ohio Procurement and Assignment has classified approximately 350 physicians of military age but not in military service, as "available". Re-analysis of names and situations is made frequently, resulting in reclassification of physicians in all parts of the state. The number of "availables" may have to be revised upward later if the need of the armed forces for medical officers becomes more acute than it is at present.

Who is eligible to apply for commission?

Any legally licensed physician meeting the professional qualifications of the various services, who is under 45 years of age (with certain exceptions) and who is declared available by the Procurement and Assignment Service. Physicians 45 or older will be considered if they have special qualifications for special openings in the medical departments of the services.

Can a candidate for appointment state his preference for branch of service?

Yes. He can indicate preference for Army, Army Air Force or the Navy. There is no absolute guarantee that he will receive the assignment requested, but efforts will be made by the War and Navy departments to comply with his request.

What rank will a physician receive?

Decision as to appointment and grade rests with the Surgeons General of the Army and Air Force and the Navy Department, based on qualifications, age and need for officers of a certain grade.

Where may a physician apply for a commission?

Application for commission in the Army and Air Force may be filed with the Army Officer Procurement Service. It has three offices in Ohio, namely: 733 Huntington National Bank Building, Columbus; 740 Society for Savings Building, Cleveland; and 1407 Ingalls Building, Cincinnati.

Application for commission in the Navy may be filed at the following offices: Naval Officer Procurement, 141 W. Jackson Blvd., Chicago; Naval Officer Procurement Service,

617 Vine Street, Cincinnati; Naval Officer Procurement, 200 Superior Avenue, Cleveland; Naval Recruiting Station, Old Post Office Building, Columbus.

What recruiting activities are these agencies carrying on?

They have been supplied by the Ohio Procurement and Assignment Committee with the names of Ohio physicians classified as available for military service and are interviewing such men regarding applications. The Army and Navy procurement agencies are cooperating on the matter of giving physicians an opportunity to state a preference for branch of service. For example, if a physician interviewed by the Army procurement officer states he prefers Navy, his name is then transmitted to the Navy procurement officer who interviews him.

What happens if an "available" man does not file an application?

After they have given an available physician a reasonable time to make a decision and file all papers, and he does not make application, the procurement agencies of the Army and Navy are under instructions to send his name to State Selective Service Headquarters, with information on the refusal and a request that consideration be given to reclassification and any action permissible under the Selective Service Law.

Who are not eligible to apply?

Enemy aliens, those without medical degree, or state license, U. S. Public Health Service officers on active duty, physicians whose papers are being processed by another branch of the service, those over age (with certain exceptions), those who have not been classed as "available" by the Procurement and Assignment Service, those whose papers have been processed and rejected by the Surgeon General, those physically disqualified for other than remediable cause after April 23, 1942. A new policy with respect to giving those physically disqualified another opportunity to apply for a commission may be evolved in the near future.

How may interns and residents, completing or about to complete their terms, apply?

In the same manner and under the same conditions as physicians in civilian practice.

What is the status of medical students?

Those in the enlisted reserve are in the Army or Navy now and subject to orders of the War or Navy Departments. They will not be called to active duty, if they maintain

their scholastic standings, until they have completed an approved hospital internship.

In order to enable the appointment of medical school graduates prior to the completion of their period of internship, although they may not be called to active duty until the completion of such period of internship, the Secretary of War has directed that "the appointment of individuals as first lieutenants, Medical Corps *** in the Army of the United States, may be made on recommendation of the Surgeon General upon the completion of their academic training at an approved medical *** school."

Students who hold Army Medical Administration Corps commissions as Second Lieutenants may request appointment as officers of the Medical Corps or transfer to the Enlisted Reserve under the Army Specialized Training Program. Inquiries as to conversion of M.A.C. commissions should be directed to the Surgeon General of the Army, Washington.

Blue Cross Plans Win Tax Suit

Group hospital service associations organized under the provisions of Sections 669 to 669-13, Ohio General Code, are not liable for the franchise tax levied on domestic insurance companies under the provisions of Sections 5414-8 to 5414-13, General Code, according to a recent decision of the Ohio Supreme Court affirming previous decisions of the Court of Common Pleas of Franklin County and the Court of Appeals in the case of the Cleveland Hospital Service Association v. Donald Ebright, Treasurer of State. The Supreme Court held that such a corporation organized for the purpose of establishing, maintaining and operating a nonprofit hospital service plan whereby hospital care may be provided by a nonprofit hospital or a group of such hospitals, is engaged in a business substantially amounting to insurance, but pointed out that the statutes provided for a method of taxation for such corporations, and that they are therefore not subject to the franchise tax levied on domestic insurance companies.

Russian Schools Need Books

Russian War Relief, which is sending American medical textbooks to Russian schools training surgeons and doctors for the front lines, has issued a new appeal for contributions of medical literature. Many Soviet schools of medicine were evacuated thousands of miles to Central Asia and the Urals from Kharkov, Kiev and other occupied cities. In most cases libraries had to be left behind. Inquiries or gifts of medical books should be sent to Russian War Relief, Inc., 11 East 35 Street, New York, 16, N. Y.

Message from the President

THE CHILDREN'S BUREAU PROPOSAL

ELSEWHERE in this issue will be found a statement of policy adopted by The Council of the Ohio State Medical Association disapproving a proposal of the United States Children's Bureau that a Federally-financed medical program be established in Ohio to provide medical and hospital maternity and infant care for the wives and children of enlisted men of the armed forces.

The statement is a detailed analysis of the proposal, its ramifications and its implications. **It should be read carefully and critically by all Ohio physicians as it brings into the open a vital issue.**

The Association's statement emphasizes the readily accepted policy that the families of men in the armed forces, the same as the families of all citizens, are entitled to, and should receive, necessary medical and nursing care and hospitalization. It urges physicians to make sure that medical services are provided when necessary, irrespective of the ability of the family to pay for such care. It suggests sound arrangements for assisting such families to finance the costs of medical care if the need for assistance arises.

On the other hand, the Association objects to the methods proposed by the Children's Bureau for reasons set forth in the statement of policy. It recommends alternative plans for accomplishing the same results.

In doing so, the Association is not taking a negative attitude nor is it trying to obstruct the carrying out of a program of assistance for worthy families. On the contrary, **the methods suggested by the Association offer greater assurance to the wives and families of service men that they will receive good medical attention than the proposal of the Children's Bureau.**

We hope that the action of the Association will not be misunderstood either by the public or the medical profession. We are confident that no dependent of any service man will suffer or be deprived of good medical attention in Ohio, even should no organized plan be inaugurated in the state. Nevertheless, the Association will take forceful action in an effort to have its recommendations put into effect.

There are times when the medical profession can benefit by making an impersonal analysis of questions involving the relationship between the profession and the public, and by subjecting such matters to a long-range point of view. Frankly, we feel that the profession should do so with respect to this question.

There are those who will argue that the medical profession should not be expected to render any service without some remuneration; that it is the responsibility of official and unofficial agencies to provide funds when an individual cannot finance the costs of medical services for himself and family.

This argument stands up if the plan or method proposed is sound and insures the maintenance of the quality of medical care and the integrity of the medical profession. Obviously, the physician cannot exist nor can he improve his knowledge so he can render better care if there is no income from his professional work. On the other hand, we feel that it is far wiser for the medical profession, if necessary, to waive all expectation of remuneration for services rendered to a certain percentage of his clientele than to submit to any program which creates a bureaucratic, governmental system that eventually will destroy the foundation of the private practice of medicine.

We feel that the medical profession in Ohio will be better off by far in the long run by adhering to this policy than by endorsing and participating in a program such as the one proposed by the Children's Bureau.

There is reason to believe that a sound plan can be developed to meet the medical needs of families of men in the service who may need assistance. However, in the final analysis, we trust each physician will take the long-range point of view; will decide that principle must take precedent over expediency; and concur in the policy that the preservation of a principle is far more important in the long run than cash on the line every time a professional service is performed.

*C. C. Sherburne, M.D.,
President*

Total of 2,545 Ohio Physicians Now in Services As 36 New Names Are Added to the Military Roster

SINCE the July issue of *The Journal* was issued, the names of 36 Ohio physicians have been added to the roster of those in military service or in full-time Federal services for the duration, making a grand total of 2,545 as of June 23, 1943. The number is divided as follows: Army, 2,193; Navy, 301; other, 51.

Following are the names of those added to the military roster during the past month, the breakdown by counties and the names of those promoted. These data are unofficial and if there are errors, *The Journal* would appreciate being advised at once:

ADDED TO MILITARY ROSTER

Name	City	Rank
Barkman, Floyd J.	Cincinnati	Lt. Comdr., U.S.N.
Barrows, Emil L.	Cincinnati	1st Lt., U.S.A.
Chamberlin, Wm. B.	Cleveland	1st Lt., U.S.A.
Damron, Carl R.	Mansfield	Capt., U.S.A.
Darrah, D. C.	Cleveland	Capt., U.S.A.
Dreyfuss, Wm.	Cleveland	Capt., U.S.A.
Dworkin, Louis	Toledo	Capt., U.S.A.
Early, Daniel	Cincinnati	Major, U.S.A.
Edwards, Walter V., Jr.	Youngstown	1st Lt., U.S.A.
Eley, James F.	Middletown	1st Lt., U.S.A.
Filger, Joseph B.	Cincinnati	Capt., U.S.A.
Gutman, Isaac	Natl. Mil. Home	Major, U.S.A.
Hastings, Warren C.	Cleveland	1st Lt., U.S.A.
Hawley, Chapin	Cincinnati	1st Lt., U.S.A.
Hayahsi, Shigeki	Cleveland	1st Lt., U.S.A.
Hoiston, Guilford M.	Columbus	Capt., U.S.A.
Hoyt, Walter A., Jr.	Akron	1st Lt., U.S.A.
Insel, H. H.	Lorain	Lt., U.S.N.
King, T. A.	Cleveland	1st Lt., U.S.A.
Klein, Harold	Cleveland	1st Lt., U.S.A.
Leslie, Roland A.	Cincinnati	1st Lt., U.S.A.
Lucas, John Richard	Columbus	1st Lt., U.S.A.
McGuire, Johnson	Cincinnati	Lt. Col., U.S.A.
Miller, Ralph	Cincinnati	Capt., U.S.A.
Miles, R. Keith	Thompson	1st Lt., U.S.A.
Nemrow, Curt M.	Cleveland	Capt., U.S.A.
Nichols, John H.	Cleveland	Lt. Comdr., U.S.N.
Rock, Harry A.	Chillicothe	Capt., U.S.A.
Sakler, Allen M.	Cincinnati	1st Lt., U.S.A.
Schilling, Irving O.	Cincinnati	1st Lt., U.S.A.
Statman, Solomon H.	Cincinnati	Major, U.S.A.
Vanderman, Philip R.	Cincinnati	1st Lt., U.S.A.
Wertheimer, Daniel S.	Cleveland	1st Lt., U.S.A.
White, Edgar H.	Cincinnati	Capt., U.S.A.
Yohe, F. R.	Bellevue	Capt., U.S.A.

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Name	City	Rank
Eyssen, Robert E.	Brunswick	Asst. Surg. (R) U.S.P.H.S.

WIN PROMOTIONS

Name	City	Rank
Barber, C. F.	Felicity	Major, U.S.A.
Bockoven, H. D.	Verona	Capt., U.S.A.
Butcher, Wendell A.	Ironton	Lt. Comdr., U.S.A.
Cavanaugh, H. N.	Cincinnati	Major, U.S.A.
Cohen, Jacob	Steubenville	Capt., U.S.A.
Craw, Bernard K.	Toledo	Capt., U.S.A.
DeBold, J. A.	Wilmington	Capt., U.S.A.
Elliott, Wm. E.	Alliance	Major, U.S.A.
Engelman, E. D.	Chillicothe	Capt., U.S.A.
Foy, Paul E.	Troy	Capt., U.S.A.
Fronek, O. J.	Cleveland Heights	Lt. Comdr., U.S.N.
Hardman, Edw. F.	Youngstown	Major, U.S.A.
Larrick, L. E.	Norwood	Capt., U.S.A.
Leyrer, Ralph H.	Hamilton	Major, U.S.A.
McKinley, C. E.	Camden	Major, U.S.A.

Name	City	Rank
Mohr, Truman J.	Lockland	Major, U.S.A.
Peelle, E. D.	Wilmington	Capt., U.S.A.
Reiling, W. A.	Dayton	Capt., U.S.A.
Sanderson, R. J.	Wauseon	Capt., U.S.A.
Sebastian, Chas. A.	Cincinnati	Capt., U.S.A.
Stéphens, James	Oberlin	Capt., U.S.A.
Witwer, R. G.	Cleveland Heights	Lt. Comdr., U.S.N.
Wolpaw, S. E.	Cleveland Heights	Major, U.S.A.

TABULATIONS BY COUNTIES

Adams	2	Guernsey	5	Muskingum ..	7
Allen	38	Hamilton	363	Noble	1
Ashland	11	Hancock	13	Ottawa	8
Ashtabula ...	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	4
Belmont	10	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	26	Holmes	2	Preble	7
Carroll	1	Huron	14	Putnam	5
Champaign ..	8	Jackson	1	Richland	40
Clark	31	Jefferson	31	Ross	21
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	16	Scioto	18
Columbiana ...	10	Lawrence	7	Seneca	12
Coshocton ...	4	Licking	17	Shelby	7
Crawford	9	Logan	9	Stark	90
Cuyahoga	607	Lorain	35	Summit	132
Darke	6	Lucas	150	Trumbull	28
Defiance	4	Madison	6	Tuscarawas ..	18
Delaware	5	Mahoning	104	Union	1
Erie	10	Marion	16	Van Wert	9
Fairfield	9	Medina	13	Vinton	2
Fayette	2	Meigs	1	Warren	4
Franklin	208	Mercer	6	Washington ...	6
Fulton	6	Miami	13	Wayne	12
Gallia	6	Monroe	1	Williams	8
Geauga	4	Montgomery ..	125	Wood	15
Greene	8	Morgan	3	Wyandot	2

Total.....2545

Mont Reid Memorial Planned

A public campaign to raise at least \$300,000 to be donated to the University of Cincinnati College of Medicine as a fund dedicated to the memory of the late Dr. Mont Rogers Reid, has been started by a "Committee of Sponsors" in Cincinnati. The fund is to be used to supplement the regular budget of the College of Medicine in order to maintain the high standards of medical education and research developed under the leadership of Dr. Reid and his associates. According to Richard R. Dupree, chairman of the Committee, the Mont Rogers Reid Memorial Fund will have a threefold purpose, "To honor the memory of a great citizen, to advance the cause of medical science and to promote the health of our community". Members of the committee include Dr. Stanley E. Dorst, Dean of the College of Medicine, Dr. Johnson McGuire, and Bleecker Marquette, director of the Cincinnati Public Health Federation, who is secretary.

Dr. A. J. McCracken, Bellefontaine, has been elected commander of the Second District of the Ohio American Legion.

WAR NOTES

DR. ELMER L. HENDERSON, Louisville, Ky., chairman of the Procurement and Assignment Committee for Physicians, Dentists and Veterinarians, Fifth Service Command (Ohio, Kentucky, Indiana and West Virginia,) and a member of the Board of Trustees of the American Medical Association, has been appointed special consultant to the Secretary of War in regard to surgical problems in connection with the Army Air Force. Dr. Henderson will confer in Washington frequently with representatives of the Surgeon General's office. He will continue to reside and practice in Louisville.

* * *

Col. E. C. Jones, medical officer of the Fifth Service Command, Fort Hayes, Columbus, was in Washington recently for a conference of service command medical officers with the new Surgeon General of the Army, Maj. Gen. Norman T. Kirk.

* * *

Among the casualties at Fletcher General Hospital, Cambridge, is Lt. Carl Stein, formerly of Loudonville, who received a leg wound during the fighting in North Africa. It is the policy of the War Department to have men hospitalized as near to their home as possible, depending, of course, on facilities and the condition of the casualty.

* * *

Messages through the International Red Cross to the War Department reveal that approximately 300 American soldiers have died in Japanese prison camps since the fall of Bataan and Corregidor of diseases, chiefly malaria, diphtheria, dysentery and pneumonia.

* * *

Three Ohio physicians have been named Fellows in Aviation Medicine of the Aero Medical Association, namely: Lt. Col., Herbert B. Wright, Cleveland; Lt. Col., W. Randolph Lovelace, 2nd., Wright Field, Dayton; and Col. Otis O. Benson, Jr., Wright Field, Dayton. They are among an initial group of 25 fellows elected under the new constitution and by-laws of the organization. To be a fellow, a officer must have made an outstanding contribution to aviation medicine.

* * *

Captain James E. McCormick, former Zanesville physician, has been appointed commanding officer of Station Hospital, Fort Benjamin Harrison, Indianapolis.

Lt. Edward Kezur, former member of the faculty of the Department of Psychiatry, University of Cincinnati College of Medicine, was among those wounded in the battle for Attu Island and is at present at Barnes Hospital, Vancouver Island, Wash. According to a letter Lt. Kezur wrote to a Cincinnati colleague, he was wounded—not seriously—when the Japs made a surprise suicidal attack on a hospital tent, killing five and wounding or re-wounding all other occupants. He said among the casualties on Attu were a small number of psychiatric patients—some with hysterical paralysis, a few “anxiety states”, and others with mild blast concussions. The loneliness of the Alaskan outposts is tremendously intense, he wrote, causing mental upsets, and in some instances causing men to wound themselves in order to be evacuated.

* * *

Capt. Thomas R. Curran, formerly of Columbus, now at Camp Breckenridge, Ky., writes that Capt. M. A. Krakoff, also of Columbus, is chief of the examining board, and that Capt. “Whitey” Merrill also a Columbusite, has been transferred to the Station Hospital there.

* * *

An 8-mile parachute leap made by Lt. Col., William Randolph Lovelace, 2nd., director of the aeromedical laboratory, Wright Field, Dayton, near Euphrata, Washington, to test the high-altitude equipment used by fliers, is described as follows in a June 30 Associated Press dispatch by William Frye:

“The colonel comes from Missouri and laboratory tests left him skeptical—he had to see it to believe it.

“So Lieut. Col. William Randolph Lovelace II, 35, surgeon and air forces expert on high altitude equipment made a parachute jump from 40,200 feet—the highest on record in this country—to convince himself and everybody else that the emergency oxygen equipment furnished to army airmen is all that laboratory tests indicate.

“It was his first jump and he said today at a press conference that it would be his last for a while, although his only injury was the freezing of his left hand. The jerk of his opening chute flipped off his heavy glove in a 50-below temperature.

“Otherwise, Lovelace reported, he suffered no discomforts—the heavy regulation clothing, including oxygen mask, goggles and helmet, protected even his face from the cold.

“Lovelace jumped from an army bomber near Euphrata, Wash., last Thursday. The parachute opened automatically, and the shock “blackened out”

the colonel. He regained consciousness at about 30,000 feet, and by the time he got down to 8,000 feet was fully recovered.

"He landed in a wheatfield, and was picked up immediately, and taken to the Euphrate Air-base Hospital for treatment of his frozen hand.

"It's going to be all right," he said.

"It took him 23 minutes and 51 seconds to float down, he said, adding with a grin that this time 'was almost exactly what laboratory calculations said it would be.'

"Lovelace, whose home is at Rochester, Minn., is a graduate of Washington University, St. Louis, with a master's degree in surgery from the University of Minnesota. He was on the staff of the Mayo Clinic at Rochester before he was called to active duty with the air forces Feb. 15, 1942, and is now director of the aeromedical laboratory at Wright Field, Ohio".

* * *

Following a 15-day leave at his home in Youngstown, Lt. Samuel J. Klatman is now on a new assignment. He went through heavy air bombardment when American forces took over part of the Aleutians, having been assigned as one of the medical officers to the transports which took part in those engagements.

* * *

The Distinguished Service Cross has been awarded to Capt. Richard Sanderson, former Wauseon physician, for valor in the New Guinea area. Capt. Sanderson, attached to a bomber crew, crawled into a flaming plane which had crashed, and rescued other members of the crew.

* * *

Congress has passed legislation providing funds for the expenses of medical, dental and veterinary medical students under the Army Specialized Training Program for the full term, rather than for only two years as the present proposal had been amended by the House.

* * *

Capt. Harrison S. Evans has been transferred from Tampa, Fla., to Modesto, Calif., with the 47th General Hospital. He's from Columbus.

* * *

Capt. Carl A. Roden, formerly of Hamilton, is now on overseas duty.

* * *

Physicians ineligible for military duty and who can be spared from civilian practice may be interested in openings in Federal Government agencies, such as the Civil Aeronautics Adm., Public Health Service, Veterans' Administration, and Food and Drug Adm. Applicants must be cleared as available by the Procurement and Assignment Service. Information may be obtained at first and second-class post offices, Civil Service Regional Offices and the Commissioner, Washington, D. C. An applicant must hold the degree

of doctor of medicine from an accredited school. There are no written tests and no age limit.

* * *

Maj. Robert T. Allison, formerly of Akron, member of the 25th General Hospital Unit, Louisville, is at present taking a course in the treatment of gas casualties, Chemical Warfare School, Edgewood Arsenal, Maryland.

* * *

Bed covers, skirts of grass, coral, tapa cloth, yoka wood and other trophies from South Pacific islands are being displayed in a Bellefontaine department store window. They were received by Mrs. Hobart L. Mikesell, West Liberty, Logan County, from her husband, Lt. Col. Mikesell on duty in the South Pacific.

* * *

Lt. Comdr., W. H. (Bill) Evans, Youngstown, who pulled stakes as president of the Mahoning County Medical Society to enter the Navy Medical Corps, has written an intensely interesting letter from the South Pacific to the Mahoning County Bulletin, excerpts from which follow:

"Your letter was rather slow in arriving. Due no doubt to the fact that it came by a slow ship. Since I am moving around considerably it is not uncommon that my mail misses me at a station and either has to await my return or to be forwarded. But when one considers the large amount of mail that comes to us and in the surprisingly short time air mail letters often reach us, one is not inclined to complain about the delay of a portion of his mail.

"Since I last wrote you, have had the opportunity to visit numerous Army and Navy hospitals. Have also seen many doctors from neighboring towns and cities. On two occasions have seen Stanley Myers. He came aboard ship for dinner and we had a long visit. His assignment has kept him busy and he has gotten some valuable experience. He told me he had seen Lawton and Schwebel some time previous to my visit there. He was well and happy in his work.

"On one occasion I ran into a crowd from Dayton. They have also been very busy and are doing good work.

"The Cleveland Clinic crowd have been very nice to me. They are well situated and apparently very happy. They have visited the ship and have had me out to their mess on two different occasions. Have not seen the Lakeside unit but will be on the look out for them.

"Am still pleased with my assignment. As up to now, there has not been a dull moment. Am hoping that it continues as interesting as it has in the past. But don't want any surprises. Just a life with enough work to keep up the interest but without too many torpedoes and bombs coming our way.

"Have been interested in noting in the news broadcasts the numerous nice things we are going to do for everyone when the war is over. You can rest assured that everyone you talk to here is much more interested in getting it over. They feel post war problems are important, especially the threat of inflation and the socialization of everything including the practice

of medicine. No one that I know wants that as a present when they get back.

"Everyone with whom I have talked to admires Capt. Rickenbacker and the news of his speeches have made a great impression. He has had ample opportunity to find out what some of the men have gone through and the way they look at conditions as they hear of them. Most are very well posted about what goes on at home as they not only read letters, newspapers and magazines from home but they listen to news broadcasts regularly.

"Have been interested in the activities of the Society since I left and feel those in charge should be commended for their efforts in keeping it on the high plane it was during normal times. I am sure we all realize it has not been easy but is certainly worth the effort."

* * *

Lt. John E. Martin, formerly of Columbus, has been transferred from Geiger Field, Washington, to Great Falls, Montana, assigned to the 551st Bombardier Squadron.

* * *

Brig. Gen. Paul R. Hawley, a native of College Corner, has been awarded the legion of merit for his work as chief surgeon for the eastern theater of operations, during September, 1941, and June, 1942, when he planned all hospitalization and evacuation of American forces in England.

* * *

The Navy Department has announced that one of the new destroyer escort vessels being constructed will be named for Ensign James W. Haverfield, Uhrichsville officer who was killed in the Jap attack on Pearl Harbor, and the son of Dr. and Mrs. Tracy Haverfield, Uhrichsville.

* * *

He is a member of the First Auxiliary Surgical Group being organized at Fort Sam Houston, for overseas duty, writes Capt. Frank E. Hamilton, formerly of Columbus. He was formerly located at Barnes General Hospital, Vancouver, Wash. Dr. Hamilton says his team will be air-borne and ready to set up shop in any area in the combat zone to which the unit is assigned.

* * *

Dr. William Joseph Loeb, Cleveland Heights, has been promoted to the rank of major, Army Medical Corps, and is now at Camp Atterbury, Ind.

* * *

After two and one-half years of foreign service, Capt. Russell L. Shively, Toledo, is now stationed at Camp Bowie, Texas, where he is chief of septic surgery in a 2400-bed hospital.

* * *

Lt. Col., Arthur G. King, formerly of Cincinnati, says there is quite a colony of Buckeyes at his South Pacific outpost. His address is Headquarters Service Command, APO 708, San Francisco.

Recently we saw a copy of a letter written by a physician to a colleague in the service. It was headed "Day of a Doctor on the Home Front". It not only contained lots of information but it revealed quite clearly that there is little time for play at home.

COME ON, BOYS, KEEP YOUR LETTERS COMING!

During the past month we did not receive the usual number of letters from physicians in the service. Maybe, you chaps on the firing line have been too busy to write. But, don't forget that The Journal wants to hear from you often as we want to keep your associates in the services informed about you. Keep the letters coming. If you don't, we cannot make the "War Notes" as interesting and informative as we hope to make them.

Maj. John E. L. Keyes, formerly of Youngstown, chief, E.E.N.T. Sub-Section, Bushnell General Hospital, Brigham City, Utah, visited "the home town" recently when he "convoyed" a group of wounded from Bushnell to the Fletcher General Hospital, Cambridge, Ohio. Major Keyes reports that the Bushnell Hospital has been designated as a special experimental center for penicillin therapy and that they are getting some miraculous results when the treatment is given in a scientific manner and under proper controls.

* * *

All the medical personnel of General Hospital Unit, No. 25, organized at the University of Cincinnati College of Medicine, are now on active duty. The unit's headquarters is at Louisville, Ky., but at the present time many of the medical officers are taking special work at medical training centers.

* * *

Temperatures at Charlotte, N.C., are up to 102, writes Maj. Edward Hardman, formerly of Youngstown, and the air conditioning in the surgery was recently extended to the scrub room, sterilizing room, laboratory and X-ray. Put that in your pipes and smoke it, you chaps on the home front, in your air-conditioned surgeries!

* * *

Dr. George T. Harding, president of the Columbus Academy of Medicine, is carrying on an enterprise which is proving exceptionally popular with Columbus physicians in military service. Each month Dr. Harding issues a letter over his signature to members of the Academy who are in the service. It contains

information, in a personal vein, about the activities of the Academy and its committees during the past month; also about activities of Dr. Harding in his official position as president of the Academy. Appended to each letter are pages of excerpts from letters which he and the Academy have received from men in the service. Through this mimeographed news letter, the men in the service are kept informed on what's going on in medical circles back home and are able to keep up with what their colleagues are doing in the service. The personal touch which has been given to the letter makes it something more than just a bulletin. Presidents of other county medical societies might try this stunt.

* * *

There is no truth to rumors which have been circulated that enlisted men assigned to the Army Specialized Training Program (medical students, for example) will be compelled to remain in the Army from five to 10 years after the present emergency, War Department officials state. They will be in the army on the same basis as any other enlisted man, i.e., "for the duration of the emergency and six months thereafter".

* * *

After nine months on surgical services at Camp Crowder, Mo., Capt. Harry E. Chalker, Youngstown, states he is moving on to colder climates—APO Seattle.

* * *

Capt. A. F. Hawk, former Urbana surgeon, has been placed in charge of the Station Hospital at the internment camp for prisoners at Herford, Texas.

* * *

A letter stating that he has arrived safely overseas has been received by the wife of Major Truman J. Mohr, Lockland. He is in charge of surgical service with the general hospital unit.

* * *

Dr. Russell G. Witwer, former Cleveland Heights physician, has been promoted to the rank of lieutenant commander, Navy Medical Corps, and has received his flight surgeon's wings at the naval air station, New Orleans.

* * *

Lt. John A. Renner, who has been on active duty for nearly two years—one of the first to leave Youngstown—was home recently on a 10-day leave.

* * *

Lt. B. R. Smith, formerly of Lewisburg, has been selected as an aviation medical examiner at Davis Monthan Field, Tucson, Ariz.

* * *

Dr. and Mrs. Roy C. Eddy, Shaker Heights, have been informed that their son, Col. Howard

C. Eddy, former Cleveland physician, recently completed a course in tropical medicine at Walter Reed Hospital, Washington, graduating at the head of his class.

* * *

Among the medical officers recently graduated from the medical field service school, Carlisle Barracks, Pa., was Capt. Guilford B. Hoiston, Columbus.

* * *

Capt. Sid Davidow, formerly of Youngstown, is now overseas, after a course in tropical medicine at Washington.

* * *

Capt. Boni E. Petcoff, Toledo, writes his family that shortly after he docked in Iran, 13 sacks of mail were sorted and that he received 36 letters from home, "which were just like chocolate cake".

* * *

The following Ohio medical officers are on the surgical staff of the recently dedicated Winter General Hospital, Topeka, Kansas: Maj. Walter A. Reese, Middletown, and Capt. Henry Mosher, Dayton.

* * *

The last information which his family had was that Lt. Comdr., Thomas W. Geoghegan, Fostoria, had been assigned as chief medical officer on the U. S. S. McCawley, an army transport. The McCawley was sunk by Japanese near the Solomon Islands recently. The Navy report that all personnel had been removed before the vessel was sunk, so Dr. Geoghegan's family presume that he is alive and uninjured.

Dr. Roy W. Scott, Cleveland has been made a member of the committee on cardio-vascular disease of the National Research Council. This committee acts in an advisory capacity to the Surgeons-General of the Army and Navy.

Physicians To Have Opportunity To Visit War Casualties

An opportunity to study Army and Navy treatment of casualties at two of the nation's leading military hospitals will be afforded physicians attending the annual convention of the Association of Military Surgeons of the United States in Philadelphia, October 21-23 inclusive.

Visits to the U. S. Naval Hospital, Philadelphia, and the U. S. Army Hospital at Valley Forge, where patients from war zones are under treatment, may be arranged for members of the Association during the three-day convention at the Bellevue-Stratford if they so wish, those planning the meeting have announced.

Observations of A Service Command Consultant

F. DONNETTE ADAMS, Lt. Col., Medical Corps, Fort Hayes, Columbus, Ohio
Medical Consultant, Fifth Service Command

THE professional consultant service was authorized and instituted in the Army Medical Corps about eight or nine months ago. At present a Medical, a Surgical and a Neuropsychiatric Consultant have been assigned, or are about to be assigned, to each Service Command. In most they have been serving for several months. Similar appointments have been made in the various theaters of operations.

We serve in an inspectorial and consultative capacity in all of the fixed Medical Department installations for the care of the sick and injured. Our duties in each hospital are similar to those performed by the attending physician in any large civilian hospital. We concern ourselves exclusively with the professional aspect of the service; administrative functions are not included in the scope of our activities. We make visits through the wards, evaluate the quality of attention being rendered the sick soldier, appraise professional capabilities of the staff, individually and collectively, make suggestions concerning diagnosis and treatment of problem cases and endeavor to coordinate the medical work throughout the command by conveying to the officers of each installation what we have learned from their confreres at others.

NEW DATA EXCHANGED

For example, at almost every hospital which I visited, I have by observing cases and by talking with the Chief of Medical Service and his associates, added to my store of knowledge regarding the response of individuals to meningococcal infections. New information thus acquired has been relayed to the officers at hospitals visited subsequently. I believe it is fair to say—with no credit to myself—that as a result of being thus forewarned, medical officers have been able to recognize in the early stages and consequently to save cases of meningococcal infection showing unusual manifestation which in the ordinary course of events might well have remained undiagnosed until too late. Professional information is also exchanged between geographic areas either by direct communication between consultants or by clearance through the Office of The Surgeon General. We also serve The Surgeon General as easily contacted sources of information concerning disease in the field.

WHY PAPER WORK IS IMPORTANT

Finally, and I regard this as most important, the attempt is made to create in the minds of medical officers the thought that the Army, contrary to the opinion of many, definitely is in-

The accompanying article consists of excerpts from an address made by Lt. Col. Adams at a regional meeting of the American College of Physicians, held in Columbus, Ohio, on May 14, 1943. We believe the article will be of interest to readers of The Journal as it describes the excellent system which has been developed to coordinate the medical services at the army installations within a Service Command and for the exchange of data and experiences on the care of sick and injured army personnel.—The Editor.

terested in what might be called their "doctoring".

It is often said—wrongly I am certain—that the Army is more concerned with the technical correctness of a medical record than with the correctness of a diagnosis. Many physicians entering from civilian life acquire this point of view. Army methods, to be sure, differ in many respects from those in civilian practice. These new officers are not in a position to appreciate the importance of many of the administrative details. They do not realize, for example, how vital is the need in connection with the pension problem for complete, carefully written medical records. Every medically discharged soldier is a potential pensioner. The validity of his claim will be decided to a large extent on his medical record. One wants to be fair to the soldier but the tax-payer also has a stake in the deal.

Because of what they consider unnecessarily voluminous paper work, recently commissioned officers tend to become unhappy, perhaps even disgruntled. They chafe under regulations. Those who practiced in large centers miss the intellectual stimulation which comes from close association with their colleagues. Those in the smaller stations and in camps situated at a distance from any city have a feeling of isolation. In fact they almost feel neglected. To correct the misapprehension just noted and by discussing with them their various medical problems we attempt and hope to maintain morale at a higher level.

EARNEST, HARD WORKERS

Now if I may be permitted to speak from the standpoint of a civilian physician who only in the past six months has been in uniform I would like to tell you what my observations have been.

For the Medical Department of the Regular Army I have only words of praise. All the officers in the regular army whom I have met are hard, earnest workers. Practically all of them have been taken away from contact with patients and assigned to administrative duties. You know how any of us would feel under similar circumstances. We just would not like it. Yet these officers, overwhelmed with a vast amount of administrative detail and faced with the unhappy task of converting into medical officers, civilian doctors most of whom are decided individualists, have carried on with grace and efficiency. They have taught us, demonstrated to us and corrected our mistakes with wisdom, understanding and a charitable tolerance of what to them must at times appear like ordinary stupidity.

All of us hear stories about this soldier or that soldier who was improperly treated in some hospital or this man or that man who was accepted for the Army when he should have been rejected or rejected when he should have been accepted. In all honesty I can report to you that in my experience the badly treated case is a rarity; that I have encountered only rarely a medical officer from civilian life in a position which on the basis of his professional background and experience he is incapable of filling. To me it is little short of remarkable that in such a brief span so many officers have been assigned and so few misfits subsequently discovered. With few exceptions medical officers, regular and temporary, are giving the job everything they have.

SPECIAL INSTRUCTION PROVIDED

Furthermore, the Army Medical Department is bending every effort to make professional service even better. It provides courses in Tropical Medicine, Neuropsychiatry, Internal Medicine, Cardiology, Clinical Pathology, Neurosurgery, Thoracic Surgery, and in other specialties. Officers are being constantly detailed to these courses for from one to three months; they are then assigned to positions in which their newly acquired knowledge will prove most useful. We have between 30 and 40 officers from this Service Command (roughly 8 to 10%) taking special courses all the time. Research projects covering any number of problems—malaria, dysentery, other tropical diseases, respiratory disease, shock, burns, problems of tank warfare, problems of aerial warfare, to mention but a few—have been instituted by The Surgeon General in various centers throughout the country. And now a project has been started through the cooperation of the American Medical Association, the American College of Physicians and the American College of Surgeons to bring graduate teaching in medicine directly to the officers in our military and naval hospitals.

I am convinced that in comparison with the previous war the Medical Service this time is vastly superior. If I may be permitted to leave any message with you, it is that your brothers, your sons, and your friends are receiving excellent medical care, and that we have every reason to be proud of the Regular Army Medical Officers and of our colleagues from civilian practice who almost overnight have been converted into fine medical officers.

Cincinnati Auxiliary Raises Funds For Emergency Medical Kits

Forty emergency medical kits for use on Coast Guard patrol-boats are on their way to the 9th U.S. Naval District from the Medical and Surgical Relief Committee of America provided by the donation of \$1010.95 from a group of Cincinnati citizens, Mrs. Huttleson Rogers, executive chairman has announced from Committee offices in New York City.

Of the 40 patrol-boat kits, 20 are earmarked for the Coast Guard in Cleveland, 10 for St. Louis and 10 for Chicago, the three district headquarters of the 9th Naval Area. This shipment makes a total of 70 kits of an expected 150 that are promised to the Coast Guard ships of the 9th District.

The fund was raised by the Woman's Auxiliary to the Cincinnati Academy of Medicine and by the Cincinnati division of the Medical and Surgical Relief Committee under the chairmanship of Dr. Leon Schiff.

To date, over 300 such kits have been distributed by the Committee to the small craft that guard our coast-lines, rivers and lakes and that patrol the seas for enemy submarines.

In addition to essential drugs, bandages and an instrument roll, the patrol-boat kit carries a simple fishing outfit, dried bait and signaling mirrors—vital tools in the event of a shipwreck when crew may be stranded or must resort to life-rafts.

The Medical and Surgical Relief Committee of America, conducted for nearly three years by a nation-wide group of physicians, has donated over \$537,000 of medical and surgical supplies to the armed forces of America and her allies, to needy hospitals, to war-zone welfare groups and nurseries, and to civilian defense posts throughout the free world.

There is no evidence from insurance figures that the increased employment of women in industry since the outbreak of the war has adversely affected their tuberculosis death rate, according to the Statistical Bulletin of the Metropolitan Life Insurance Company.

Record Amount—\$4,243,069—Disbursed for Medical Services By Industrial Commission in 1942, Annual Report Shows

THE State Industrial Commission disbursed a record amount—\$4,243,069.09—for medical services to injured Ohio workmen during 1942, according to a recent report of E. I. Evans, chief actuary. The figure includes a relatively small amount for dental services.

Other expenditures during the year included: \$1,760,898.69 for hospital care and nursing; \$133,104.41 for funeral expenses and \$86,644.34 for court costs, a total of \$6,223,733.53. These amounts include payments covering injuries to private and public employees, as well as similar costs on occupational disease claims, and are in addition to death awards and compensation to injured employees.

Comparative figures for 1941 were as follows: \$3,322,792.06, medical services; \$1,258,095.36, hospital care and nursing; \$122,290.05, funeral expenses and \$73,998.89 for court costs, a total of \$4,777,177.26.

TOTAL CLAIMS FILED, 320,793

The number of claims filed during 1942 was 320,793, also a record for the 31-year history of the Workmen's Compensation Fund. There were 286,010 claims filed in 1941—the previous peak year. The total for 1932 was 130,099.

“Medical only” claims, involving payment for physicians' services but no compensation to the claimant for loss of time, numbered 256,600 in 1942, or 80 per cent of all claims filed, compared with 79.5 per cent in 1941. Average expense of “medical only” claims decreased from \$8.03 in 1941 to \$7.69 in 1942.

ASSETS AND SURPLUS INCREASE

Included with the report is a statement of the financial condition of the Ohio State Insurance Fund as of December 31, 1942. (Table 1). The surplus of the fund increased \$590,216.58 during the year resulting in a surplus at the close of the year amounting to \$7,871,296.50, and in addition there is a statutory surplus of \$3,573,789.15. These surpluses remain after increasing the claim reserve in the amount of \$12,876,325.17, from \$65,562,219.06 to \$78,438,542.23. The total assets of the fund increased last year by \$17,734,670, from \$84,609,864 to \$102,344,535, an all-time high in the history of the fund. The report points out that this increase is due in a large part to the war emergency's heavy increase in industrial employment.

Following are several important excerpts from the actuary's analysis of the state insurance fund:

REDUCED RATES

“The favorable trend of the workmen's compensation experience during the year 1942 has made it possible to reduce the general level of workmen's compensation basic rates 8.0%. This represents the eighth consecutive annual rate reduction, and the accumulative effect of these reductions is a decrease of 34% below the peak rates in effect in 1935. Based upon activity similar to 1942, it is estimated that the rate reduction will result in a \$2,600,000 lower premium cost to employers over the next year. The rate reduction was made possible principally as a result of the rather general increased wage levels, tending to increase premium without a corresponding increase in employee exposure or claim benefits.

MINIMUM PREMIUMS

“The recent legislative amendment eliminating the provision for minimum premiums has necessitated the discontinuance of classification minimum premiums, which were in effect over the past two years. This requires that the premium in all cases shall be determined by applying the appropriate rate to the amount of payroll. Thus, in the future, when an advance premium has been paid and coverage extended, only such portion of the premium shall be retained on adjustment at close of period as is warranted by the actual payroll expenditure of the employer. If no payroll was expended the full advance premium payment shall be refundable.

OCCUPATIONAL DISEASES

“The occupational disease losses continue to show an increasing cost, this increase being particularly evident in industries with dust hazard. There is therefore a revision upward in the occupational disease rates in 76 industry classifications while 21 classifications received disease rate reduction and in 289 classifications there was no change in the occupational disease portion of the basic rate.

RECENT AMENDMENTS

“The 95th General Assembly enacted the following amendments effective June 15, 1943:

“Established a minimum weekly compensation benefit rate of \$14.00 in permanent partial (schedule loss) disability cases. (Formerly there was no minimum applicable.)

“Provides for including non-elected public officials with those persons specified as employees and eligible for benefits from the public portion of the Fund.

(Continued on page 777)

TABLE 1
OHIO STATE INSURANCE FUND
 (Workmen's Compensation)
FINANCIAL STATEMENT AS OF DECEMBER 31, 1942
***PRIVATE FUND**

Assets	
BONDS AT AMORTIZED VALUES.....	\$ 89,630,726.36
State Treasurer's Bond Balance.....	\$93,047,492.31
*Less Public Fund.....	5,412,921.40
Par Value of bonds.....	\$87,634,570.91
Amortized value over par.....	1,996,155.45
All bonds are in the custody of the State Treasurer and consist of obligations of the Federal Government and Ohio taxing districts.	
CASH.....	8,378,207.42
(Deposited with State Treasurer as Custodian)	
State Treasurer's Balance.....	\$ 8,895,703.85
*Less Public Fund.....	517,496.43
PREMIUMS IN COURSE OF COLLECTION.....	3,665,159.37
(Less reserve for delinquent accounts)	
INTEREST ACCRUED	670,441.89
TOTAL ASSETS	\$102,344,535.04
*The Ohio State Insurance Fund is separated by statute into two funds. The Private Fund covers employers in private industry, while the Public Fund covers the State, municipalities and other taxing districts.	
LIABILITIES	
RESERVE FOR COMPENSATION AND MEDICAL BENEFITS.....	\$ 78,438,542.23
To cover future payments on claims where the inception of the injury or disease was prior to January 1, 1943. Compensation and other benefits extend over periods of time and, in some cases, during the remainder of the life of a claimant.	
OUTSTANDING WARRANTS	1,206,675.99
Warrants issued for claim benefits which had not been presented for payment to the State Treasurer by December 31, 1942.	
UNEARNED PREMIUM	8,187,021.19
Advance premium paid for coverage beyond December 31, 1942.	
SECURITY FLUCTUATION RESERVE	3,067,209.98
To provide for possible depreciation of bond investments.	
STATUTORY SURPLUS	3,573,789.15
To provide for catastrophic losses and other statutory contingencies. (No reinsurance is carried to cover catastrophe hazard.)	
SURPLUS	7,871,296.50
To provide for general industrial trends and non-statutory contingencies.	
TOTAL LIABILITIES AND SURPLUS.....	\$102,344,535.04

TABLE 2
COMPARATIVE INCOME, LOSSES AND EXPENSE

Year	Earned Premium	Losses Incurred	Minus Investment Earnings	Net Losses Incurred	Premium	Expense
1938	\$15,004,859	\$15,861,386	\$1,762,302	\$14,099,085	94.0	\$145,130
1939	16,214,045	15,930,752	1,929,504	14,001,248	86.4	138,747
1940	18,124,819	19,380,332	1,881,310	17,499,022	96.5	143,935
1941	25,323,544	22,650,750	1,877,703	20,773,047	82.0	154,573
1942	32,264,595	31,835,609	2,189,318	29,646,291	91.9	158,923

"Eliminates the former requirement of 90 days Ohio residence or 90 days Ohio employment in occupational disease claims.

"Provides an allowance of \$10.00 per week for 26 weeks, with medical and other benefits, for one change of occupation in case of silicosis.

"Eliminates the provision for minimum premiums.

ACTUARIAL AUDIT

"The Workmen's Compensation Law requires that an actuarial audit of the Fund be made by recognized outside insurance actuaries at least once in each five year period, and that such audit shall cover the premium rates, classifications, and all other matters involved in the administration of the Fund. The last actuarial audit was made in 1938. In accordance with the statute an actuarial audit is required in 1943.

"The firm of Joseph Froggatt & Co., Inc., consulting actuaries and auditors of New York City, was selected to make the audit and examination. This firm is recognized as among the foremost specialists in all branches of insurance. A report covering all phases of the examination will be available at a later date.

THIRTY-ONE YEAR PERIOD

"On March 1, 1943, the Ohio State Insurance Fund reached its 31st anniversary as a state-operated workmen's compensation carrier for Ohio employers.

"For the first year and ten months the Fund operated in competition with private insurance companies, and for the last 29 years has been operated as an exclusive state fund in that private insurance companies have been prohibited from writing workmen's compensation insurance in Ohio.

"The record as to the accomplishments of the Fund from March 1, 1912, to December 21, 1942, is as follows:

Employers insured	162,645 (a)
Premium collected	\$391,452,196
Benefits disbursed	\$337,514,211
Interest collected	\$ 49,178,378 (b)
Claims filed	5,232,815

- (a) Number of employers insured at some period or continuously over the 31 years.
- (b) Interest earned on Fund investments used to pay benefits, thus obviating the necessity for premium in like amount.

RECENT YEARS GROWTH

Year	Employers Insured	New Claims Filed	Total Assets
1938	50,099	165,223	\$ 61,074,353
1939	51,861	183,180	67,856,966
1940	61,490	212,033	75,099,482
1941	64,547	286,010	89,585,744
1942	62,583	320,793	108,362,992

"Since 1938 the Fund has shown a consistent growth to an extent which has far surpassed all former records.

"The number of new claims filed follows rather closely the intensity of industrial activity, while the total assets have increased at a greater ratio than claims filed as the assets are required to be not only ample to meet the increasing claims but also to provide for the increased level of benefits."

Fletcher Castoria Mystery Solved; Manufacture is Resumed

Manufacture of Fletcher's Castoria, interrupted several months ago, has been resumed. Harold B. Thomas, vice-president of Sterling Drug, Inc., announced that the company's research had discovered both the reason for the presence of a nausea-causing irritant in certain batches of the product, as well as the methods for preventing a recurrence. The new product will be available to the public about September 15.

The research disclosed that a change in the chemical characteristics of the water, harmless in itself, in combination with the reduced sugar content, interfered with the normal aging process. Fermentation was intensified and speeded up and this retarded normal reoxidation of the active principles. These deoxidized active principles, known as anthroquinones, are known to have an irritant action upon the mucuous membranes.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Anne Marie Hummer, Brewster, and Dr. Adolph A. Gruber, Cincinnati; Dr. Elizabeth Workman, Delaware, and Mr. Theodore Lash, Cleveland; Miss Tessie M. Thomas, New London, and Dr. Reynold P. Deutschman, East Cleveland; Miss Mary Irene Rice, and Dr. Geo. P. Fitzgerald, Jr., both of Springfield; Miss Mary Anne Myers, and Dr. Joseph Bernard Westoven, both of Toledo; Miss Roberta Willesberg, and Dr. Phillip W. Limberg, both of Cincinnati; Miss Sara Lee Strouss, and Dr. Edwin R. Brody, both of Youngstown; Miss Alys Winifred Peregrine, Berea, and Dr. George Newton Spears, Cleveland; Dr. Helen Thompson, and Lt. (j.g.) Michael A. Petti, both of Cleveland; Miss Jacqueline Beck and Dr. W. J. Hegedus, both of Columbus.

A committee was appointed at the recent session of the New York State Legislature "to make a comprehensive and thorough study of legislation enacted in other states for the regulation, control and licensing of chiropractors; to determine proper educational standards and requirements and to prepare and recommend legislation for the regulation of chiropractors in the state of New York".

Digest of New Wagner Bill to Extend Social Security Law To Include Medical and Hospital Services

NOW pending in the U.S. Congress is the long-promised proposal of Senator Wagner of New York to broaden the Social Security program to include medical and hospital services—a compulsory sickness insurance bill. The bill—S. 1161—has been referred to the Senate Committee on Finance. Following is an analysis of the measure prepared by the Bureau of Legal Medicine and Legislation of the American Medical Association and excerpts from an editorial on the proposal, published in the June 26, 1943, issue of *The Journal of the American Medical Association*.

It is suggested that all Ohio physicians study this material in order to gain some idea of the bill's ramifications and the gigantic changes which would take place should it become a law. Now is the time when the physician must familiarize himself with the text and meaning of S. 1161. The time for action will come later—perhaps not in the too distant future.

* * *

REFERRED to generally as embodying an Americanized Beveridge plan but offered in Congress, according to Senator Wagner, "simply as a basis for legislative study and consideration," legislation was introduced, June 3, in the Senate by Senator Wagner, New York, for himself and Senator Murray, Montana, and in the House by Representative Dingell, Michigan, proposing to create a Unified National Social Insurance System (S. 1161; H. R. 2861). The Senate bill is pending in the Senate Committee on Finance and the House bill in the House Committee of Ways and Means.

The system proposed to be created will be financed in general from a trust fund established by a 6 per cent employee and a 6 per cent employer contribution on all wages and salaries, up to the first \$3,000 a year, paid or received after Dec. 31, 1943. Included in this proposed system will be a system of public employment offices, increased old age and survivors' insurance benefits, temporary and permanent disability insurance benefits, protection to individuals in the military service, increased unemployment insurance benefits under a federalized unemployment system, maternity benefits, medical and hospitalization insurance benefits, a broadening of the basis of the existing social security program to embrace some 15,000,000 persons now excluded, such as farm workers and domestic servants, employees of nonprofit institutions, independent farmers, members of the professions and other self-employed individuals, and a unified public assistance program. There follows an analysis of those provisions of the ninety page bill that appear to be of particular concern to medicine.

DISABILITY BENEFITS PLUS MEDICAL CARE

The bill broadens the existing social security coverage by providing for the payment of cash permanent disability benefits to beneficiaries. In addition to such cash benefits, the Social Security

Board, through the Surgeon General of the Public Health Service, will be authorized to make provision for furnishing medical, surgical, institutional, rehabilitation or other services to disabled individuals, entitled to receive insurance benefits, if such services will aid in enabling such individuals to return to gainful work. Such services, it is contemplated, will be furnished "by qualified practitioners and through governmental and nongovernmental hospitals and other institutions qualified to furnish such services." In administering the provisions of this particular section of the bill, the Surgeon General and the Social Security Board will follow as far as applicable the procedure outlined by another section of the bill relating to medical, hospitalization and related benefits generally.

MEDICAL, HOSPITALIZATION AND RELATED BENEFITS IN GENERAL

Section 11 of the bill proposes to add a new title to the Social Security Act, title IX, providing for a federal system of compulsory medical and hospitalization insurance for all persons covered under the old age and survivors' insurance, and their dependents. Each insured worker and his dependent wife and children will be entitled to receive general medical, special medical, laboratory and hospitalization benefits. In addition, the system is made elastic so that it may be enlarged in its coverage to admit other beneficiaries on a voluntary basis, such as self-employed individuals and employees of state and political subdivisions.

In order to appreciate the broad scope of this new title, consideration must initially be given to the meaning of the words and phrases used in it. The term "general medical benefit" means services furnished by a legally qualified physician, including all necessary services such as can be furnished by a physician engaged in the general practice of medicine, at the office, home, hospital or elsewhere, including preventive, diag-

nostic and therapeutic treatment and care, and periodic physical examinations.

The term "special medical benefit" means necessary services requiring special skill or experience, furnished at the office, home, hospital or elsewhere by a legally qualified physician who is a specialist with respect to the class of service furnished.

The term "laboratory benefit" means such necessary laboratory or related services, supplies or commodities, not provided to a hospitalized patient and not included as a part of the general or special medical benefit, as the Surgeon General of the United States Public Health Service may determine, including chemical, bacteriologic, pathologic, diagnostic and therapeutic X-ray and related laboratory services, physical therapy, special appliances prescribed by a physician, and eye glasses prescribed by a physician "or other legally qualified practitioner."

The term "hospitalization benefit" means (1) not less than \$3 and not more than \$6 for each day of hospitalization, not in excess of thirty days, which an individual has had in a period of hospitalization; (2) not less than \$1.50 and not more than \$4 for each day of hospitalization in excess of thirty in a period of hospitalization; and (3) not less than \$1.50 and not more than \$3 for each day of care in an institution for the care of persons suffering from chronic ailments. The exact amount of the benefit, between the minimums and maximums stated, will be fixed by the Surgeon General of the Public Health Service after consultation with the National Advisory Medical and Hospital Council to be created by the bill and after approval by the Social Security Board. In lieu of such compensation, the Surgeon General may, after approval of the Social Security Board, enter into contracts with participating hospitals for the payment of the reasonable cost of hospital service, at rates for each day of hospitalization neither less than the minimum nor more than the maximum applicable rates previously mentioned. Such payments will constitute full reimbursement, the bill provides, for the cost of essential hospital services, including the use of ward or "other least expensive facilities compatible with the proper care of the patient."

PANEL OF PHYSICIANS TO SUPPLY MEDICAL CARE

The Surgeon General will be required to publish and otherwise make known in each area to individuals entitled to benefits the names of general practitioners who have signified their willingness or desire to participate in the insurance program. Any legally qualified physician may so participate. A beneficiary may select any physician appearing on the panel to treat him subject to the consent of the physician selected, and may change such selection in ac-

cordance with such rules and regulations as may be prescribed. The Surgeon General may set maximum limits to the number of potential beneficiaries for whom a general practitioner may undertake to furnish medical benefits. Such limits may be nationally uniform or may be adapted to take account of "relevant factors."

The services of specialists will ordinarily be available only on the advice of the general practitioner. The Surgeon General will determine what constitutes specialist services and will also determine the qualifications of physicians as specialists "in accordance with general standards previously prescribed by him after consultation with the council and utilizing standards and certifications developed by competent professional agencies."

PAYMENTS FOR THE SERVICES OF PHYSICIANS

Payments to general practitioners may be made (1) on the basis of fees for services rendered, according to a fee schedule approved by the Surgeon General; or (2) on a per capita basis, the amount being according to the number of individuals entitled to benefits who are on the practitioner's list; or (3) on a salary basis, whole or part time; or (4) on a combination or modification of these bases. The method of payment, subject to the approval of the Surgeon General, will apparently be determined in each area in accordance with the desires of a majority of the general practitioners collaborating with the insurance program.

Payments to designated specialists may include payments on salary (whole time or part time), "per session," fee for service, per capita, or other basis, or combinations thereof. Apparently the method of payment to be adopted for specialists will be determined by the Surgeon General.

Payments for medical services may be nationally uniform or may be adapted to take account of "relevant factors." In any area where payment for the services of a general practitioner is on a per capita basis, the bill provides that the Surgeon General shall distribute on a pro rata basis among the practitioners of the area on the panel those individuals in the area who, after due notice, have failed to select a general practitioner or who, having made a selection, have been refused by the practitioner.

The bill provides that in each area the provision of general medical benefit for all individuals entitled to receive such benefit "shall be a collective responsibility of all qualified general practitioners in the area who have undertaken to furnish such benefit."

LIMITATIONS ON GENERAL MEDICAL AND LABORATORY BENEFIT

The Surgeon General and the Social Security Board may determine for any calendar year or part thereof that every individual entitled to gen-

eral medical benefit may be required by the physician attending him to pay a fee with respect to the first service or with respect to each service in a "spell of sickness" or course of treatment if it is believed that such a determination is necessary and desirable to prevent or reduce abuses of entitlement to such benefits. Maximum size of such fee may be fixed by the Surgeon General and the Social Security Board at an amount estimated to be sufficient to prevent or reduce abuses and not such as to impose a substantial financial restraint against proper and needed receipt of medical benefit. Likewise the Surgeon General and the Social Security Board may limit the application of such fees to home calls, office visits or both.

PARTICIPATING HOSPITALS

For a hospital to participate in this insurance program, it must have been approved by the Surgeon General under standards prescribed by him after consultation with the council. A hospital to be approved must provide all necessary and customary hospital services and must be found to afford professional service, personnel and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institution. The Surgeon General may approve or accredit a hospital for limited varieties of cases and may accredit an institution for the care of the "chronic sick." In determining the adequacy of the professional service, personnel and equipment of any such institution, the Surgeon General may take into account the purpose of such limited accrediting, the type and size of community which the institution serves, the availability of other hospital facilities, and such other matters as he may deem relevant.

APPLICATION FOR AND LIMITATION OF HOSPITALIZATION BENEFITS

No application by an individual for hospitalization benefits will be valid with respect to any day of hospitalization if the application is filed more than ninety days after such day, or with respect to any day of hospitalization for mental or nervous disease or for tuberculosis after such diagnosis has been made. The maximum number of days in any benefit year for which any individual may be entitled to hospitalization benefit will be thirty. If, however, the funds in the special hospitalization benefit account fund to be created prove adequate, the maximum number of days may be increased to ninety by the Surgeon General and the Social Security Board, acting jointly.

PROPOSED METHOD OF ADMINISTRATION

The Surgeon General of the Public Health Service will be authorized to take all necessary and practical steps to arrange for the availa-

bility of the medical, hospitalization and related benefits. He will be authorized to negotiate and periodically to renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any state or political subdivision thereof, and with other appropriate public agencies, and with private agencies or institutions, and with private persons or groups of persons, to utilize their services and facilities and to pay fair, reasonable and equitable compensation therefor.

The methods of administration, including the methods of payment to practitioners, the bill provides, shall (1) insure the prompt and efficient care of individuals entitled to benefits; (2) promote personal relationships between physician and patient; (3) provide professional and financial incentives for the professional advancement of practitioners, and encourage high standards in the quality of services furnished as benefits through the adequacy of payments to practitioners, assistance in their use of opportunities for postgraduate study, coordination among the services furnished by general practitioners, specialists, laboratory and other auxiliary services, coordination among the services furnished by practitioners, hospitals, health centers, educational, research and other institutions, and between preventive and curative services, and otherwise; (4) aid in the prevention of disease, disability and premature death, and (5) insure the provision of adequate service with the greatest economy consistent with high standards of quality.

NATIONAL ADVISORY MEDICAL AND HOSPITAL COUNCIL

The bill proposes the creation of a National Advisory Medical and Hospital Council, to consist of the Surgeon General of the United States Public Health Service as chairman and sixteen members appointed by him. The appointed members will be selected from panels of names submitted by the professional and other agencies and organizations concerned with medical services and education and with the operation of hospitals and from among other persons, agencies or organizations informed on the need for or provision of medical, hospital or related services and benefits. Appointed members will hold office for four years, with the terms of office staggered. The appointed members will receive compensation at the rate of \$25 a day for time spent on official business of the council, and actual and necessary traveling expenses and per diem in lieu of subsistence.

This council will "advise" the Surgeon General as to (1) professional standards of quality to apply to general and special medical benefits; (2) designation of specialists; (3) methods and arrangements to stimulate and encourage the attainment of high standards through coor-

dination of the services of general practitioners, specialists, laboratories and other auxiliary services, and through the coordination of the services of practitioners with those of educational and research institutions, hospitals and health centers, and through other useful means; (4) standards to apply to participating hospitals and to establishment and maintenance of the list of participating hospitals; (5) adequate and suitable methods and arrangements of paying for medical and hospital services; (6) studies and surveys of the services furnished by practitioners and hospitals and of the quality and adequacy of such services; (7) grants-in-aid for professional education and research projects, and (8) establishment of special advisory, technical, local or regional boards, committees, or commissions.

RELATION TO WORKMEN'S COMPENSATION ACTS

The benefits provided by this bill will not be available with respect to an injury, disease or disability coming within the purview of any state or federal workmen's compensation act.

DENTAL, NURSING AND OTHER BENEFITS

The bill devolves on the Surgeon General and the Social Security Board jointly the duty of ascertaining the most effective methods of providing dental, nursing and other needed benefits not contained in the pending bill and of determining the expected costs of such additional benefits. The bill contemplates that the Surgeon General and the Social Security Board will report the results of their findings, with recommendations as to legislation, not later than Jan. 1, 1946.

GRANTS-IN-AID FOR MEDICAL EDUCATION, RESEARCH AND PREVENTION OF DISEASE AND DISABILITY

The Surgeon General will be authorized to administer grants-in-aid to nonprofit institutions and agencies engaging in research or in undergraduate or postgraduate professional education. The purpose of these grants will be to encourage and aid the advancement and dissemination of knowledge and skill in providing benefits and in preventing illness, disability and premature death. Such grants-in-aid will be made with respect to each project (1) for which application has been received from a nonprofit institution or agency, stating the nature of the project and giving the reasons for the need of financial assistance in carrying it out, and (2) for which the Surgeon General finds, with the advice of the council, that the project shows promise of making valuable contributions to the education or training of persons useful to or needed in the furnishing of medical, hospital, disability, rehabilitation and related benefits or to human knowledge with respect to the cause, pre-

vention, mitigation or methods of diagnosis and treatment of disease and disability.

This part of the program will be financed by setting aside a certain percentage of amounts expended for benefits from the Federal Social Insurance Trust Fund to be created by the bill. The amount to be set aside will equal 1 per cent of the total amount expended for benefits from the trust fund, exclusive of unemployment insurance benefits, or 2 per cent of the amount expended for benefits under title IX (relating to federal medical, hospitalization and related benefits), after benefits under that title have been payable for not less than twelve months, whichever is the lesser, in the last preceding fiscal year. The bill apparently leaves all the details with respect to these grants-in-aid to regulations to be promulgated by the Surgeon General after consultation with the council.

SELF-EMPLOYED INDIVIDUALS

Self-employed individuals many receive the benefits of the old age, survivors, and permanent disability and medical and hospital insurance by paying into the Trust Fund an amount equal to 7 per cent of the market value of their services rendered as self-employed individuals, after Dec. 31, 1943, with respect to services in self employment after that date, but not including that part of any remuneration for employment and the market value of services in self employment in excess of \$3,000 for any calendar year.

EMPLOYEES OF STATES AND LOCAL SUBDIVISIONS

The bill authorizes the Social Security Board to enter into compacts with individual states or with political subdivisions for the purpose of extending old age, survivors, and permanent disability and medical and hospitalization insurance coverage to employees of such states or political subdivisions. To finance the benefits to be provided under such compacts, the bill requires such employer to pay a social security contribution equal to 3.5 per cent of the wages paid by it after Dec. 31, 1943, and every individual beneficiary of such a compact a contribution equal to 3.5 per cent of the wages received by him after Dec. 31, 1943, excluding any amount paid or received in excess of \$3,000 during any calendar year after Dec. 31, 1943.

BILL AS VIEWED BY SENATOR WAGNER

On the floor of the Senate, June 3, Senator Wagner described the over-all objectives of his bill as follows:

The bill establishes a nationwide system of public employment offices, to help war workers and war veterans to avail themselves of job opportunities, in private industry and on farms, throughout the country. It covers broadly the major economic hazards of average American

families—the cost of medical and hospital care, and loss of income in time of unemployment, temporary sickness, permanent disability and old age. It improves the present old age insurance system and extends coverage to 15,000,000 persons now excluded, such as farm workers and domestic servants, employees of nonprofit institutions and the independent farmer, professional and small businessman. All these changes are established under a unified national system of social insurance, with one set of contributions, one set of records and reports and one set of local offices. Reinforcing the job guaranty in the Selective Service Act, the bill gives the returning veteran and his family paid-up benefit rights in every phase of this insurance protection. And, finally, the bill sets up an improved, unified system for grants-in-aid to the states for public assistance, on a variable matching basis, in place of the rigid categories under present law.

PROSPECT OF SENATE CONSIDERATION OF THE BILL

Senator Walter F. George, chairman of the Senate Committee on Finance, before which S. 1161 is pending, has been quoted as saying that his committee cannot possibly undertake to give consideration to the bill until late in the present session of the Congress and that if that consideration is given, and if favorable action is taken by the committee, the measure will not reach the floor of the Senate until next year.

COMMENTS OF THE JOURNAL

Commenting editorially on the new Wagner bill, *The Journal of the American Medical Association* said in part:

"The Board of Trustees and the newly created Council on Medical Service and Public Relations of the American Medical Association will, no doubt, give careful consideration in the near future to the policy of the Association regarding this specific measure. Arrangements will probably be considered for representation at hearings before the appropriate committees of the Senate and the House. Announcement made by the chairmen of the committees of the Senate and of the House in charge of the bill indicate that this legislation is not likely to come for consideration previously to the next session of Congress. In the meantime physicians should inform themselves concerning its genesis and its objectives.

"In its evolution the Wagner-Murray-Dingell bill stems from the National Health Conference of 1937, the Wagner bill which followed that conference, and the report of the National Resources Planning Board. Essentially in its medical aspects it is a compulsory sickness insurance bill and an attempt to translate the proposals of the Social Security Board into a technic of action. Inquiry of reliable sources in Washington indicates the probability that the actual designers and authors of the bill included I. S. Falk, director of the Bureau of Research and

Statistics of the Social Security Board of the Federal Security Administration, Mr. Wilbur J. Cohen, technical adviser to the Social Security Board, and Senator Wagner's secretary, Mr. Philip Levy. A statement issued by William Green, president of the American Federation of Labor, says 'The measure, which is the most comprehensive attempt yet made to establish postwar security in this country, is the fruit of a five year study by experts on the staff of the American Federation of Labor, which will give the proposed program full sponsorship and support.' Inquiry also reveals that, as far as can be determined, representatives of the medical profession, either within or without the government, were not consulted in the development of the medical provisions. Evidence of this failure to consult the medical profession appears in the language of the proposed bill, since it speaks twice of a 'spell of sickness.' The word 'spell,' thus employed, does not appear in English dictionaries except as a colloquialism in Webster, and the term is seldom, if ever, used by any one educated in medicine.

"A study of the analysis by the Bureau of Legal Medicine and Legislation will reveal to the medical reader the terms of the proposal. Speaking bluntly, however, the measure apparently attempts to avoid the innumerable difficulties involved in developing a government controlled medical service by making the Surgeon General of the Public Health Service, whoever he might be, a virtual 'gauleiter' of American medicine. Indeed, it is doubtful if even Nazidom confers on its 'gauleiter' Conti the powers which this measure would confer on the Surgeon General of the U. S. Public Health Service. Here are some quotes:

EXTENSIVE POWERS GRANTED

The Surgeon General of the Public Health Service is hereby authorized and directed to take all necessary and practical steps to arrange for the availability of the benefits provided under this title. . . .

. . . The Surgeon General is hereby authorized to negotiate and periodically to renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any state or political subdivision thereof, and with other appropriate public agencies, and with private agencies or institutions, and with private persons or groups of persons, to utilize their services and facilities and to pay fair, reasonable and equitable compensation for such services or facilities. . . .

There is hereby established a National Advisory Medical and Hospital Council to consist of the Surgeon General as Chairman and sixteen members to be appointed by the Surgeon General.

The Surgeon General shall publish and otherwise make known in each area to individuals entitled to benefit under this title the names of general practitioners who have agreed to furnish services. . . .

Services which shall be deemed to be specialist

services shall be those so designated by the Surgeon General, and the practitioners from among those included in paragraph 1 above who shall be qualified as specialists and entitled to the compensation provided for specialists shall be those so designated by him as qualify to furnish such specialist services. . . .

Payments from the Trust Fund to general practitioners . . . shall be made on the basis of fees for services rendered to individuals entitled to benefits, according to a fee schedule approved by the Surgeon General. . . .

The Surgeon General may prescribe the maximum limits to the number of potential beneficiaries for whom a practitioner may undertake to furnish general medical benefit. . . .

The Surgeon General is hereby authorized to establish necessary and sufficient hearing and appeal bodies. . . .

The Surgeon General shall publish a list of institutions found by him to be participating hospitals. . . . Inclusion of an institution upon such a list shall, unless and until withdrawn by him, be conclusive. . . .

The Surgeon General and the Social Security Board may . . . determine for any calendar year . . . that every individual entitled to general medical benefit may be required by the physician furnishing such benefit to pay a fee with respect to the first service or with respect to each service in a spell of sickness or course of treatment.

The Surgeon General and the Social Security Board jointly shall have the duty of studying and making recommendations as to the most effective methods of providing dental, nursing and other needed benefits. . . .

The Surgeon General, after consultation with the Social Security Board, and with the approval of the Federal Security Administrator, shall make and publish such rules and regulations . . . necessary to the efficient administration. . . .

The term "laboratory benefit" means such necessary laboratory or related services, supplies or commodities . . . as the Surgeon General may determine, including chemical, bacteriological, pathological, diagnostic and therapeutic X-ray, and related laboratory services, physiotherapy, special appliances prescribed by a physician, and eye glasses prescribed by a physician or other legally qualified practitioner.

With respect to inclusion in the list of participating hospitals the Surgeon General may accredit a hospital for limited varieties of cases and may accredit an institution for the care of the chronic sick. . . .

"This list is not all inclusive. There are many other points which space does not permit to be included in an editorial.

"FREE CHOICE"—PERHAPS

"In offering the bill, its proponents emphasize that it provides for free choice of doctors; free choice of a doctor means, of course, free choice of doctors willing to engage in this type of work.

"The proposed measure has already been discussed editorially by such newspapers as the *Washington Star* and the *Chicago Daily News*, both of which pointed out that its passage would accumulate, at least for the present, de-

ductions from many workers' wages of 20 per cent for income tax, 10 to 25 per cent for war bonds, 12 per cent for social security and such other special deductions as are already made in many individual plants. According to these figures there would be a minimum deduction of 42 per cent and a maximum deduction of 57 per cent of the worker's wages. The *Chicago Daily News* said:

"We suspect that zeal for social security in the sweet by and by will have a hard time surmounting the shriveled paycheck already here, with the future shrinkage now plainly in sight"

More Social-Medical Legislation Is Enacted by Congress

Before recessing for two months, the Congress passed two bills of special interest to the medical profession. One was H.R. 2326 to provide Federal funds for the education of nurses; the other H.R. 2536 to provide funds for vocational rehabilitation of the disabled.

H.R. 2326 by Representative Frances Bolton, Cleveland, will provide nurses entering what has been termed the "U. S. Cadet Nurse Corps" with tuition, stipends, maintenance, fees and uniforms. It also provides funds for graduate nurses wishing to take postgraduate work. It is contemplated that those taking advantage of the program will be available to meet the needs of the armed forces and other governmental agencies, for nurses, estimated at about 60,000. An average annual expenditure of about \$60,000,000 for the program is anticipated. An advisory committee of nurses and hospital officials has been named to assist the Surgeon General, U. S. Public Health Service, in administering the training program. One member of the committee is Miss Marion Howell, dean, Frances Payne Bolton School of Nursing, Western Reserve University, Cleveland.

H.R. 2536 by Congressman Barden, North Carolina, and Senator LaFollette, Wisconsin, provides for the use of Federal money for vocational rehabilitation and rehabilitation services for disabled veterans and civilians. The program for veterans will be administered by the Veterans' Administration; that for civilians by state vocational rehabilitation agencies under the supervision of the Federal Security Agency. The Federal Government will reimburse a state 50% of its expenditures for rehabilitation of disabled persons fit to engage in remunerative occupations. Services would include: Medical examination; medical and surgical care to correct or mitigate a physical handicap; hospitalization, providing of prosthetic devices, rehabilitation education and training, maintenance of trainees while in training. Expenses of administration would be borne by the Federal Government. Services for the blind, however, will be administered by state agencies for aid of the blind.

Vitamin Fad Critically Analyzed and Exposed in Bulletin Issued by the Columbus Better Business Bureau

RECENTLY the Columbus Better Business Bureau, Inc., issued a bulletin entitled "Fact, Fad or Fancy?" It is a splendid piece of public health education, consisting of a critical analysis of the vitamin fad which has swept the country. It exposes the weak spots and the dangers in a way which Mr. and Mrs. John Q. Citizen can readily understand—if they will read it. The bulletin is reproduced here. It is suggested that physicians read it, clip it and pass it on to their patients to read. It packs a wallop and a lot of sound advice.

* * *

FACT, FAD OR FANCY?

WITH employers being solicited by salesmen, the public heavily barraged by advertising, plus the stress of keeping fit during the emergency, what are the facts as to the claims for vitamin pills, capsules and concentrates? Without attempting to give full or authoritative answer, our members should be interested in a brief review of some facts obtained from industrial and public health and nutrition experts.

Vitamins—whether concentrates or isolated from natural sources—are not food—nor even substitutes for food. They are catalytic or accelerating agents which aid in assimilating foods into the human body. A vitamin is the spark which sets off the powder: food. But if the particular food (the powder) is not present in the body, the vitamin is generally wasted; likewise if the needed vitamin is absent the particular food is difficult to assimilate. For example, vitamin D becomes of value only when an adequate supply of calcium and phosphorous (upon which "D" acts) is also present.

EXPERT GUIDANCE NEEDED

Proper benefit from vitamins can be derived only by knowing how and when to use them.

For this all-important reason, the average layman—being without such knowledge—is advised not to try to obtain their benefits except under expert guidance.

Vitamins are not cure-alls nor do they provide energy, calories or body building materials. Their function is to regulate the utilization by the body of various food elements and no amount of vitamins is helpful without the essential foods. Thus vitamins are but a part of the larger picture of nutrition. This is why authorities on the subject place greater stress on diet, emphasizing the need for eating the right foods in the right amounts. If a healthy persons were to do so he would not have to be concerned with vitamins as they are in those foods in sufficient quantities for the normal need.

Experts declare that the average person who has been on a properly balanced diet has no business taking vitamin concentrates. They say commercial vitamins have no place in the diet of normal individuals properly nourished and that synthetic preparations are used by physicians merely as a temporary measure to get the human body back to its proper vitamin balance; when



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LOCATIONS! OPPORTUNITIES

*Service To Aid Physicians in Securing Assistants and Placing Young Doctors Is Offered by
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Physicians who have recently completed their internships, or physicians, with experience, desiring to change locations are requested to file their names with the State Headquarters Office, Ohio State Medical Association, 1005 Hartman Theater Building, Columbus, Ohio.

Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

Cook County Graduate School of Medicine

(IN AFFILIATION WITH COOK COUNTY HOSPITAL)

Incorporated not for profit

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique starting July 26, August 9, August 23, and every two weeks throughout the year.

MEDICINE—Two Weeks Intensive Course starting October 4. Two Weeks Course in Gastro-Enterology starting October 18. Two Weeks Course in Electrocardiography starting August 2.

FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course starting October 18.

GYNECOLOGY—Two Weeks Intensive Course starting October 18. One Month Personal Course starting August 2. Clinical and Diagnostic Courses.

OBSTETRICS—Two Weeks Intensive Course starting October 4.

OPHTHALMOLOGY—Two Weeks intensive Course starting September 27. Course in Refraction Methods October 11.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 13.

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that norm is reached, thereafter a balanced diet is all that is needed.

REASONS FOR NOT USING

Several reasons are given by these authorities for warning the untutored not to dose themselves with prepared vitamins without professional advice. (1) They are for the sick alone and only a physician can determine which persons will benefit from an extra supply. (2) For fear of upsetting the delicate balance of the agencies of the body which help assimilate foods. (3) Harm may result to persons who assume that by taking prepared concentrates they can relax vigilance on other health factors. (4) If the human body doesn't need the vitamin taken, it usually passes off as waste. (5) As with patent medicines of a former day, possibly the greatest harm is the waste of money for commercial preparations are expensive as compared to natural vitamin sources in foods. (6) The realm of vitamins is not fully explored by any means; there are still uncertainties as all the vitamins and all their effects are not yet known.

The National Research Council, a division of the National Academy of Sciences, has made the following statement of interest to business executives:

"Employers are beginning to appreciate the importance of better nutrition among their employes, and in their anxiety to obtain quick results are in many instances distributing synthetic vitamins in varying dosage without preliminary study of diets and nutrition. This is a practice which the Committee on Nutrition in Industry cannot recommend on the basis of present knowledge.

supplementing the diet with synthetic vitamins fails to make provision for deficiencies in proteins, fat, carbohydrates, minerals and the numerous accessory factors which *** are essential for the maintenance of health.

"Supplementing the diet with synthetic vitamins may be shown to be necessary in particular instances by dietary and nutritional studies. In the absence of information derived from such studies the Committee cannot recommend the indiscriminate administration of synthetic vitamins in the hope that they may remedy undiscovered dietary inadequacies or unrecognized nutritional deficiencies."

Note the emphasis on investigation of the need, beforehand, and the warning against indiscriminate dosing of employes without first studying diets and nutrition.

NATURAL FOODS BETTER

The importance of the use of natural foods rather than vitamin pills and capsules in solving any dietary deficiencies of industrial employes is illustrated by what has been done in England where, it is to be remembered, food is strictly rationed and many protective foods are scarce. There, all factories employing two hundred or

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Today, business is not as usual; furthermore it is not likely to return to that status: thousands of improvements engendered by war emergencies will evolutionize many industries when Peace is accomplished. Just a very small indication of this is hinted in the plastic lipstick container pictured above. When our pre-war supply of metal Wedding-Ring Lipstick containers was depleted, *plastic* came to the rescue with a container that we believe will meet your requirements from an aesthetic as well as a practical standpoint. This new lipstick should be available around the 15th of August (we hope)

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more workers must provide one good meal each day; and authorities, including the minister of health, are said to view with disfavor attempts to dispense vitamins to employees indiscriminately.

It is significant that public health and governmental authorities concerned with insuring the availability of sufficient vitamin potencies, have approached the problem by recommending certain foods be fortified rather than encouraging the public to take vitamin concentrates to improve health. For persons having definite symptoms of vitamin deficiency, several times as much vitamins will be required to cure the deficiency than contained in such popularized products offered to keep a normal person well. In such cases prescribed vitamin concentrates play an essential role.

Vitamin pills and capsules have created a business exceeding \$100,000,000 yearly. No doubt a large part of this boom and the wide popular interest can be credited to advertising promotion. But it is charged some advertisers are misinforming the public.

CLAIMS MAY BE MISLEADING

The public should not be misled by claims made on behalf of some vitamin synthetics, as presently constituted, that the product will help restore lost pep, bring one "back to life" or remedy conditions of being tired, low in resistance, nervous and irritable—especially when it is inferred that prepared vitamins alone are the solution. Nor should reliance be placed on suggestions to supplement your war rations with such pills and capsules if the implication is that they can actually take the place of foods.

Summarizing, (1) vitamins are not food and should not be taken as substitutes therefor; (2) employers are advised not to indiscriminately dose employees without preliminary scientific studies; (3) individuals should place concern on obtaining the right foods and leave it to authorities to see that those foods be fortified where necessary. In cases of actual deficiency, persons are advised to consult a competent physician.

New Polio Research Project

In another concerted attack on infantile paralysis, a special unit to study exactly what happens in the human body when the disease strikes and the methods of treating it, is being set up at the University of Minnesota, Minneapolis, it was announced jointly today by Basil O'Connor, president of The National Foundation for Infantile Paralysis, and Dr. W. C. Coffey, president of the University. For this program of investigation, the National Foundation has approved a five-year grant of \$175,000, to the University of Minnesota for the five-year period July 1, 1943 to June 30, 1948.

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In Memoriam

Meyer K. Amdur, M.D., Cincinnati; Tomsk Medical Institute, Tomsk, Russia, 1920; aged 48; former member of the Ohio State Medical Association and the American Medical Association; died July 15. Dr. Amdur was assistant superintendent of Longview State Hospital. From 1918 to 1920 he was a captain in the Russian Army in Siberia, and was later connected with the University of Austria in Vienna. Dr. Amdur came to this country in 1924 and was on the staff of the University of Georgia Medical School. For 14 years prior to joining the staff of Longview Hospital, he was with the Veterans' Administration at Coatsville, Pa. Two brothers and a sister survive.

Harold Kohli Begg, M.D., Cleveland; Northwestern University Medical School, Chicago, 1918; aged 49; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 13. Dr. Begg had practiced in Cleveland since 1933. He was physician for the the Cleveland professional football and hockey teams. Surviving are his widow, a son and a brother.

Edgar Parsons Cook, M.D., Johnstown; Pulte Medical College, Cincinnati, 1897; aged 76; died July 6. Dr. Cook practiced in Granville and Center Village for 21 years. During World War I he was a lieutenant in the Medical Corps of the U.S. Army. He was a member of the Methodist Church. His widow, a son and four daughters survive.

John Hamilton Cooper, M.D., Massillon; University of Pittsburgh Medical School, 1913; aged 61; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American Academy of Ophthalmology and Oto-Laryngology; died July 16. Dr. Cooper had practiced in Massillon since

1918. He was previously located in Navarre and Brewster. Two brothers and a sister survive.

John Fred Decourey, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1908; aged 60; former member of the Ohio State Medical Association and the American Medical Association; died July 5. Dr. Decourey practiced in Cincinnati for 35 years. He was a member of the staff of Good Samaritan Hospital, and a veteran of World War I. Surviving are his widow, a daughter, two sisters and four brothers—all physicians, Drs. Carroll, Joseph, Giles and Paul Decourey, all of Cincinnati.

Orr Abraham Dickson, M.D., Jefferson; Starling Medical College, Columbus, 1898; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 29. After practicing in Cortland, Trumbull County, for two years, he located in Jefferson and practiced continuously there from that time, except during World War I when he was a captain in the Medical Corps of the U.S. Army. Dr. Dickson was president of the Jefferson Building and Loan Association, a member of the staff of the Ashtabula General Hospital, a Methodist and a Mason. His widow survives.

Earl V. Ferguson, M.D., Cincinnati; University of Cincinnati College of Medicine, 1930; aged 39; member of the Ohio State Medical Association.

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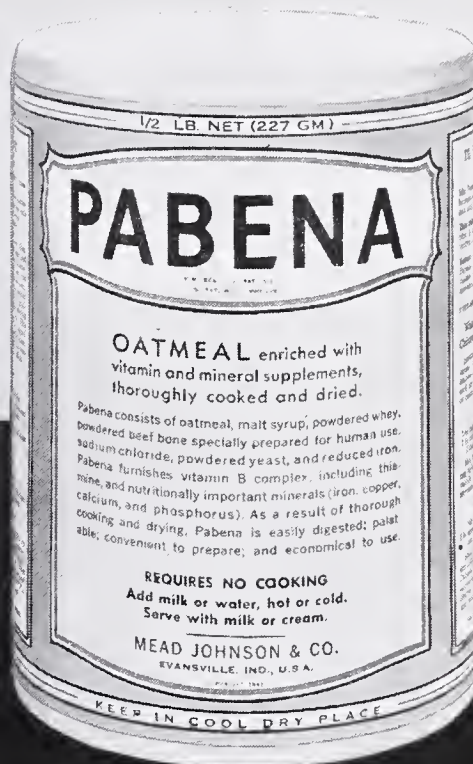
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ciation; Fellow of the American Medical Association; died June 20, at Pearl Harbor, of an illness contracted while in service as a lieutenant-commander in the Medical Corps of the U.S. Navy. Dr. Ferguson practiced in Cincinnati prior to his entrance into the Navy last October. He had been stationed at the Naval Hospital at San Diego until a few weeks before his death. Dr. Ferguson was a member of the staffs of Christ, Bethesda and General Hospitals. He had served as resident physician at General Hospital for five years following completion of internship at that institution. Later he was on the staff of the Cleveland Clinic for one year and at the University of California for one year, specializing in neurosurgery. He was a member of Sigma Alpha Epsilon, Nu Sigma Nu and Alpha Omega Alpha. His father and a sister survive.

Thomas Hubbard, M.D., Ashtabula; University of Pennsylvania School of Medicine, Philadelphia, 1895; aged 84; former member of the Ohio State Medical Association, American Medical Association, American Laryngological Association, American Laryngological, Rhinological and Otological Society and the American Otological Society, Inc.; died July 5. A pioneer in the EENT field, Dr. Hubbard practiced in Toledo from 1889 until his retirement in 1935. He was a past-president of The American Medical Golfing Association and from 1892 to 1895 was secretary of the Ohio State Medical Association. Two sons survive.

David Edward Jones, M.D., Columbus; University of Louisville School of Medicine, 1928; aged 43; member Kentucky State Medical Society and Fellow of the American Medical Association; died July 10. Last January Dr. Jones came to Ohio State University College of Medicine to establish a new division of physical medicine, of which he was director and assistant professor of medicine. He had previously practiced for ten years at Louisville, Ky. Dr. Jones was a member of the Phi Chi fraternity. His widow, a daughter, his parents and a brother survive.

Henry C. Kelker, M.D., Cleveland; Western Reserve University School of Medicine, 1903; aged 68; former member of the Ohio State Medical Association and the American Medical Association; died July 11. Dr. Kelker retired in 1934 after having practiced in Cleveland for 31 years. He was physician for the Cleveland Christian Home for 28 years, and a member of the Christian Church and the Masonic Order. Surviving are his widow, three sons, including Capt. John R. Kelker, Cleveland, now with the Medical Corps, Army Air Force, two daughters and two sisters.

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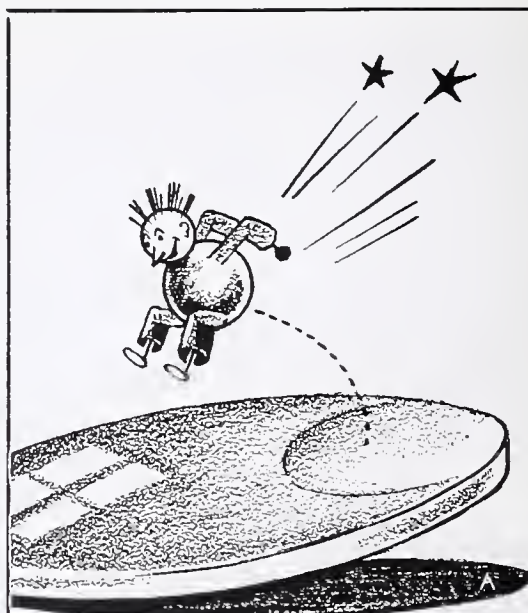
Washington, D. C., 1919; aged 49; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 13. A member of the staff of St. Elizabeth's Hospital, Youngstown, Dr. Nagle had practiced there for 13 years. He was previously located in Girard for 10 years. Dr. Nagle was a member of the Catholic Church. Surviving are his widow, three sons and a sister.

Alonzo C. Smith, M.D., Wooster; University of Michigan Medical School, Ann Arbor, 1915; aged 56; member of the Ohio State Medical Association; Fellow of the American Medical Association; died July 10. Dr. Smith practiced in Wooster for 27 years. He had been physician for the local high school and college athletic teams, and was active in the social and civic affairs of the community. Dr. Smith was a charter member of the local Rotary Club, an ardent golfer and big game hunter. He was a member of the Masonic Order and the Elks Lodge. Surviving are his widow, seven daughters, five sons—all in military service, his father, two sisters and a brother.

Ralph Kinsey Updegraff, Sr., M.D., Cleveland; University of Wooster, Medical Department, 1902; aged 70; member of the Ohio State Medical Association, American Medical Association, American College of Physicians and the American Board of Internal Medicine; died July 13. Dr. Updegraff retired last March after 40 years' practice in Cleveland. A former president of the Cleveland Academy of Medicine, Dr. Updegraff was Fifth District Councilor of the Ohio State Medical Association from 1919 to 1924. He was director of medicine at St. John's Hospital for 25 years. Surviving are his widow, a daughter, a son—Dr. Ralph K. Updegraff, Jr., now a lieutenant in the Medical Corps of the U. S. Army, and a sister.

James Heber Varnum, M.D., Benton Ridge; Western Reserve University School of Medicine, 1893; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died June 30. Dr. Varnum retired several months ago after having practiced in Hancock County for 50 years. He had been a member of the Benton Ridge Methodist Church for 50 years, a member of its official board for 40 years and treasurer of the Sunday School for more than 40 years. For many years he was a member of the local Board of Education. Dr. Varnum was a member of the I.O.O.F. His widow and a son survive.

Marysville—Dr. F. M. Wurtsbaugh, health commissioner of Union County, has been employed to serve also as health commissioner of Madison County.



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When I had finished, she said she would certainly speak to George about using S-M-A as a routine formula.

★ ★ ★

Just because my boss turned over a new leaf . . . he wants everybody to pat him on the back for it. But he's not fooling us . . . we know how he got to be such a nice man.

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tion of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

Asks Physicians To Aid in Nurse Recruiting Program

The following appeal to physicians to assist the American Red Cross in the recruiting of nurses for duty with the armed forces was prepared by Marguerite Wales, director of nursing service, Eastern Area, American Red Cross:

* * *

The wounded must not die! This is the call to the colors which has gone out to registered nurses from the American Red Cross. Thirty-six thousand nurses are needed annually for war duty—30,000 for the Army and 6,000 for the Navy. The number required each month is 3,000 nurses, yet at no time this year has the quota been met.

Appointed by the Surgeon-General of the U. S. Army as the official nurse recruiting agency, the Red Cross is now asking the support of physicians in presenting the appeal to the members of the nursing profession whose presence in the amphitheatre of conflict is essential to the winning of the war. Enrollment is not obligatory. Nurses must be convinced of the need and encouraged to enter service. Doctors by giving their advice and counsel can help nurses to make their decisions.

The size of the Army in World War II is twice that of the last war, and there are six times as many military posts inside the United States and five times as many outside our territorial limits. Yet the increase of nurses is not nearly proportionate. In the last war 23,868 were serving; so far in this war approximately 30,000.

Tabulating the distribution of nurses in 30 representative states, it has been found that nurses assigned to the armed forces came from the following groups: institutional, 68 per cent; private duty, 21 per cent; public health, 6 per cent; miscellaneous, 4 per cent; and industrial, 1 per cent. Comparison of the distribution of nurses in major civilian fields for 1941 and for 1943, shows the loss has been in institutions while public health, and in a larger measure, industry have gained. Private duty assignments, on the other hand, have remained practically the same. It is from this field primarily that nurses must be released for military duty.

The request for private duty nurses comes to physicians first, and it is they who can help greatly by bringing to the attention of their patients the shortage of nurses in the armed forces. The Red Cross appeals to physicians directly to interpret this need to the public, especially to the nurses themselves and to their patients.

Inventories reveal that there is a back-log of nurses who have yet to be called upon to fill in the gaps. In 1941 there were 13,753 inactive

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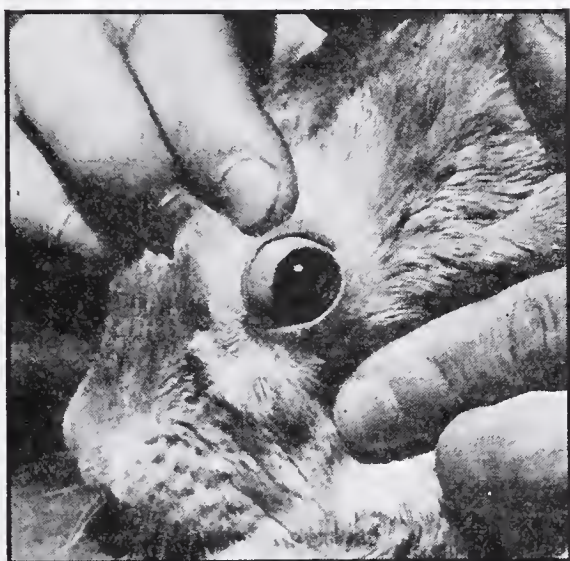
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The Physician's Bookshelf

Behind the Sulfa Drugs, by Iago Galdston, (\$2.00, *D. Appleton-Century Company, New York*) begins with the story of Calvin Coolidge, Jr., and his fatal infection, contrasts it with that of Franklin D. Roosevelt, Jr., twelve years later when the public first learned of Prontosil. From here is traced in a fascinating and colorful manner the story of the crowning achievement of these drugs in curative medicine. Every doctor will do well to read this book, if for no other reason than to improve his conversational ability in defense of medical science.

Aids to Surgical Anatomy, by J. S. Baxter, (\$1.50, *Bailliere, Tindall, and Cox, London, Second Edition*) is a compact, well written little hand manual of surgical anatomy. While prepared for senior British medical students and their final examinations, it will make a right nice little aid to give to a medical officer in the Service to whom space means a great deal.

Operating Room Technique, by Edythe Louise Alexander, R. N. (*C. V. Mosby Company, St. Louis, Mo.*) gives every detail of operating room technique with the idea of insuring the patients under surgical treatment every chance. It is well illustrated and clearly written, going into the most minute detail. In this field, of course, the smallest detail is of the greatest importance.

Essentials of Nutrition, by Henry C. Sherman and Caroline Lanford Sherman (\$3.50, *Second Edition, Macmillan and Company*) is a thoroughly up-to-date and adequate view of the essentials of nutrition, and will prove useful to all who are interested, and especially to those who are looking for such a text in their teaching.

An Introduction to Sex Education, by Winifred D. Richmond, Ph.D., (*New Home Library, New York City*) is a reprint of this valuable manual which sets forth what man has learned about his sexual nature and the problems that grow out of it. The author is psychologist to the famous St. Elizabeth's Hospital in Washington, D.C. In this volume she offers sound authoritative advice in a well balanced, dignified manner.

Proteins, Amino-Acids and Peptides, As Ions and Diporions, by Edwin J. Cohn and John T. Edsall (\$13.50, *Reinold Publishing Corporation, New York City*) is an American Chemical Society monograph which attempts a characterization of these substances. It is the author's aim to examine the size and shape of these molecules and the number and distribution of the electric charges which they bear. It is not a systematic treatise on proteins.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

September, 1943

No. 9

JONATHAN FORMAN, M.D., *Editor*

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Coronary Thrombosis or Occlusion

J. J. COONS, M.D.

THE frequency of coronary occlusion or thrombosis as the cause of death is greatly underestimated. Many of these patients die in their homes or while at work; no postmortem is made; thus we have frequent errors in diagnosis. In some instances the gastrointestinal tract or some other abdominal organ is blamed; in years gone by, "acute indigestion" was diagnosed.

Levine, in 1916, saw two cases of acute coronary thrombosis with symptoms pointing to a surgical abdomen. In the first case a surgeon was called; an exploratory operation was made; the patient died on the table. A postmortem revealed an infarction of the myocardium as the result of an acute coronary thrombosis. The second patient came to his attention some time later. A surgeon was not called; a correct diagnosis had been made as revealed by a postmortem a few days after admission to the hospital. The two cases are mentioned to show how little we knew about coronary occlusion or thrombosis twenty-five years ago.

ETIOLOGY

As in angina pectoris, in the great majority of patients, more than 90 percent suffering from coronary occlusion show thickening of the coats and narrowing of the lumen of the coronary arteries. In a few cases we may find a narrowing of the orifices of the coronaries, secondary to a luetic aortitis, which may greatly slow up the circulation. Emboli lodging in the coronaries, secondary to a septic process may produce infarction; this occurs rarely.

Heredity comes first as an etiologic factor. Many of these patients suffer from hypertension, another ailment often found in the same family. Levine speaks of the possibility of an anatomical

The Author

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irregularity of one or both coronary arteries, resulting in an undue strain on the vessels during the pulsation of the heart. He questions inheritance for this abnormality, just as we see other marks of heredity in the same family. As well as in hypertension, in coronary occlusion we have the constitutional type, the so-called "roly-poly," strong man without an illness in years. Briefly, these patients have a short neck and chest, a round, red face and an excess of weight. Coronary thrombosis rarely occurs in the undernourished enteroptotic, nor in the individual who has been sickly throughout life.

The importance of syphilis as an etiological factor is disputed. Diabetes is more often associated. (a) As an etiological factor, Katz questions the interference of the return flow of blood through the veins of the heart muscle, especially where there is an increase of pressure on the right side of the heart. (b) According to Willius, (*Journal Iowa State Medical Society, 1941*), the female metabolism of plasma lipoids is superior to the male. In pregnancy there is an increased storage of lipoids to take care of the demands of the fetus. Men do not possess such an active lipid metabolism, hence hyperlipemia may result

with depositions of lipoid substance in the arterial system a forerunner of arteriosclerosis.

The descending branch of the left coronary is the commonest site of cardiac infarction; hence it is known as "Artery of sudden death" or "Artery of cardiac infarction." Occlusion of the right coronary artery, which carries the blood to the base of the left ventricle, is second in point of frequency as a cause of coronary occlusion. The frequency of involvement of the descending branch of the left and right coronary arteries mentioned above is attributed to mechanical factors. It is questioned whether or not torsion of the heart in systole may be responsible for the frequent occlusions of these blood vessels. As stated, atherosclerosis is found in the vast majority of patients suffering from coronary occlusions. The narrowing of the lumen alone may not be of sufficient degree to cause occlusion. At the same time, it tends to inhibit a normal circulation; a sluggish blood flow is favorable to coagulation. Carbon dioxide, in excess, may result in swelling of the endothelial lining of the arteries; it may also cause an increased volume of the blood cells. The platelets adhere to the intima; fibrin is formed which may close the lumen of the artery, resulting in occlusion. Rarely ulceration of the endothelium may bring about coagulation of the blood followed by occlusion. Endothelial swelling of the smaller branches of the coronaries may occlude the lumina and bring on multiple small infarcts with very few physical signs or symptoms. The blocking of one main trunk may cause death, but this is not always the case, especially for the patient well beyond middle life with free anastomosis of the branches of the coronaries.

Vegetations formed on the aortic valves due to ulcerative endocarditis, as in rheumatic fever and other infections, in rare cases, break loose and may lodge in a coronary artery or one of its branches, as an embolus, producing obstruction, resulting in an infarction. Inflammatory changes due to a luetic aortitis, obstructing partially or completely the orifice of a coronary, may give rise to an occlusion. The importance of syphilis and diabetes, as etiologic factors will be discussed later.

Ashhoff has pointed out that "Thrombosis is facilitated by the following factors: reduced velocity of the blood stream, lowered blood pressure, pathological changes in the vessel wall and certain changes in the blood constituents both chemical and cytological. It can thus be seen that all the necessary factors for occlusion and thrombosis are increased. At the same time coronary occlusion or thrombosis may occur in an overstrained heart."

PATHOLOGY

In an early arteriosclerosis of the coronary arteries there is first a deposit of fibrous connective tissue in the intima which is attributed to over-

stretching. The overstrain of the arterial wall, sooner or later, involves the elastic and muscle elements of the intima and media. There is an uneven thickening of the media as the result of hyperplasia of the elastic and muscular fibers. The pathological athermatous areas in the intima may undergo necrosis and ulceration. These changes in the intima have been attributed to faulty cholesterol metabolism, as well as a poor circulation due to a new formed deposit of connective tissues, especially where the strain is greatest. Adami believes that the increased fibrous tissue is secondary to a weakening of the muscular coats of the media, as the result of increased strain or pressure in the arteries.

DEGENERATIVE CHANGES FOLLOWING RHEUMATIC FEVER

Mackenzie is of the opinion that the degenerative changes follow the disappearance of the capillaries in the walls of the arteries. This is especially true of acute rheumatic fever, which may produce a mesarteritis followed by intimal infiltration. This often brings about nodose intimal thickening. With the formation of nodose protrusions into the lumen there is interference of the normal circulation. With gradual limitation of the coronary circulation, there may be little or no histologic changes in the heart muscle as long as the blood supply is adequate. If inadequate, the tissue shows evidence of chronic inflammation due to waste products in the blood, and myocardial anoxemia. After middle life a collateral anastomotic circulation may be established with little myocardial changes. On the other hand, if the circulation is poor, the muscle and elastic fibers are replaced by fibrous connective tissue. If the obstruction to the circulation is more acute, the tissue supplied may undergo anemic necrosis which, if not too pronounced, may end in the formation of a fibrous scar or, if extensive, infarction. Such changes also are not uncommon in the papillary muscles. The changes in the myocardium after occlusion depend upon the size of the vessel occluded and the acuteness of onset. In sudden death, due to plugging of a large artery, there may be no myocardial change. In examining the heart, postmortem, we should cut across the coronaries at right angles and not attempt to probe the lumen for fear of displacing the blood clot. If the patient lives a few days, degenerative changes begin as the result of anemia. The infarcted area is, at first, mottled and yellow in color. Later, hemorrhage into the infarct occurs and the tissue becomes a deep red or reddish purple. This discoloration slowly fades to a grayish yellow. Necrosis begins on the third or fourth day.

Microscopically, we see the various stages of degeneration and necrosis. Granular changes, fatty infiltration, fragmentation, liquefaction and

finally, necrosis. The anastomotic vessels around the infarct become dilated. Sections show a cellular exudate of polys, lymphs and endothelial cells. Within a week or ten days fibroblasts appear and repair of the damaged myocardium begins with formation of granulation tissue; later, fibrosis and finally a dense scar.

SYMPTOMS

Under symptoms we shall discuss pain, since pain gives the patient greatest concern. The pain in the words of the patient is "intense," "prolonged," "unbearable," "awful," "devastating," "annihilating," "excruciating," or "agonizing." The pain may continue for a few hours or days or longer, gradually growing less and in most cases, but not all, may be relieved by narcotics. The patient with severe pain becomes exceedingly nervous and apprehensive; they thrash about over the bed and cannot find a position which gives relief of pain. On the other hand, some of these patients lie motionless; they are speechless; there is an expression of anguish and fear. The pains of coronary occlusion are not always as severe as described above. The absence of pain points to a slow progressive degeneration of the myocardium. There may be no pain following multiple infarctions due to plugging of small branches of the coronaries. The younger the individual the greater the pain, owing to lack of anastomosis which is present later in life. On the other hand, after middle life and later, dyspnoea is more pronounced than in the younger individual, on account of myocardial weakness associated with age. The pain may be confined to the substernal region; the chest feels like it is in a vise. Quite often there is radiation of the pain as high as the chin, into the back, the neck, the shoulders, down the arms and occasionally downward into the abdomen. Rarely is the pain confined entirely to the abdomen.

When the patient passes away promptly following an abdominal exploratory operation without a lesion having been found, death has been attributed to shock or faulty anesthesia. A postmortem should be insisted upon by the anesthetist, giving especial attention to the heart. If the patient survives an operation and no abdominal pathology discovered, a most careful examination should be made, including an electrocardiogram, to exclude coronary thrombosis.

There may be, and quite often there is, a history of angina pectoris preceding the coronary occlusion, or there may have been no substernal pain before, but later to appear after an acute attack. Following the severe pains, as a rule, there is nausea, vomiting and other gastro-intestinal complaints of sufficient degree to cause the patient and sometimes the physician, to believe that all of his complaints are due to an abdominal upset, such as "acute indigestion." Riesman un-

der the title of "Myocardial Disease and Gastric Masquerades" was among the first to call attention to the diagnostic confusion occurring as the result of coronary thrombosis. Acute indigestion and other abdominal ailments, such as gall bladder disease, pancreatitis, perforation of a peptic ulcer and even pelvic organs, such as tubal pregnancy, etc., have been questioned and quite a few unnecessary and harmful operations made without a careful, thorough and complete examination.

Following coronary occlusion there is an extreme degree of prostration and shock. A leaden tint of the skin over the face is seen. To quote Sansum, "A leaden gray tint spreads over an earthly hue of the skin." Kaufman "Ein Hertzschmerz von den Teufel." Hammon "The patient has a terrifying anguish. There is no dramatic gesture, no fuss, no flurry of the nerves. The imposing stillness intensifying the impression of imminent death." There is a cold, clammy sweat; the heart sounds are far away and indistinct; the pulse is difficult to palpate at the wrist. As a rule the heart rate is increased. The patient may insist upon an upright position owing to dyspnoea. To place the patient in the Trendelenberg position, as in surgical shock, would be hazardous.

Dyspnoea and orthopnea following a coronary occlusion may be so pronounced as to overshadow the chest pains; however, pain and dyspnea are usually associated. Even without severe chest pains, the outlook with marked dyspnea is more serious. Dyspnea results from a poor circulation in the lungs; it denotes marked cardiac weakness. With reduction of the velocity of blood through the lungs, insufficient oxygen follows, with poor elimination of carbon dioxide. The increased respiratory rate is due to improper ratios of oxygen and carbon dioxide. Excess of carbon dioxide stimulates the respiratory center. Hyperventilation acts as a protective mechanism. The administration of oxygen by tent or nasal catheter quite often relieves the dyspnoea, as well as the pain.

CARDIAC ASTHMA

Respirations are noisy and labored. The patient often obtains greatest relief by sitting on the edge of the bed or on a chair with the arms folded over the back of a table or a sofa, the head resting on the arms. In paroxysmal dyspnoea, which most often occurs late after midnight, the patient usually assumes the above position for relief. A few patients obtain greatest relief by standing up or assuming an erect position. One author speaks of a man who stood with his head propped on the mantel for two days and suddenly expired in this position. Similar cases have been reported. A passenger on a ship was sized with a coronary thrombosis; the patient insisted upon standing in front of a port-hole on account of dyspnoea. After 36 hours he slumped from this position and died.

With severe dyspnoea it is impossible for the patient with coronary thrombosis to lie flat in bed. According to MacKenzie and Wenckebach, Cheyne-Stokes breathing in coronary thrombosis is a grave sign. The apneic phase may be followed by sleep starts which may awaken and frighten the patient. With active dyspnoea, the diagnosis of Cheyne-Stokes breathing may be difficult. In rare cases, the sudden change of position due to apnea has been assigned as a cause of death.

The "ashen hue" of the skin in coronary thrombosis is due to a combination of circulatory collapse and cyanosis. Cyanosis in coronary thrombosis presents a better outlook than a persistent ashen pallor of the skin.

PULMONARY EDEMA

Levine reports a series of 145 cases of coronary thrombosis with pulmonary edema almost a constant factor. Severe pulmonary edema, as a rule, brings about a fatal ending. Pleural effusion is rare. Pericarditis occurs in more than 10 per cent of all cases. The friction rub is of short duration. With a good clinical history of coronary occlusion, it is diagnostic. Hepatic engorgement is not uncommon in acute congestion from heart failure. In most instances it is found after the third or fourth day. Edema of the lower extremities, in fact of the whole body, is seen at times. With the passive congestion, albumin and casts appear in the urine.

In coronary thrombosis, with a drop in blood pressure the heart sounds become feeble and can scarcely be heard, especially at the apex. Over the base it may be difficult to hear the aortic and pulmonic sounds. The normal heart sounds may return with convalescence; at the same time an increase in blood pressure may not be found. "Heart sound failure" is one of the pathognomonic signs of coronary thrombosis; gallop rhythm often follows closely, the heart sound failure and frequently is a terminal event.

Asynchronism of the valve closure may occur late in mitral stenosis. It is believed that the third sound is due to a delayed closure of the pulmonary valve leaflets. Any condition which interferes with the emptying of either ventricle may bring about asynchronism with gallop rhythm. It is the opinion of Robinson and Muller that this extra sound is due to auricular contraction. Normally the auricular contraction can not be heard. Others claim that weakness of the ventricles, especially the left, gives rise to an increased diastolic tension resulting in the production of the third heart sound. Gallop rhythm is best heard just within the apex and not over the auricles. The patient suffering from coronary occlusion followed by gallop rhythm may recover; however, the outlook is not good.

Cardiac arrhythmia may follow coronary throm-

bosis and may persist throughout life. If the heart muscle is damaged near the selective systems the rhythm is more irregular than if the silent areas of the heart are involved. Involvement around the apex, the muscular walls of the ventricles, and the lower part of the interventricular septum, give rise to less disturbance of rhythm than other portions of the heart.

Extra systoles are quite common after coronary occlusion when the ventricles are involved; less common when the auricles are the seat of injury. Arrhythmia due to extra systoles may interfere with ventricular functions to such a degree that there is embarrassment of the peripheral circulation, as seen in Stokes-Adams syndrome or complete heart block. Transient syncope and loss of consciousness may occur in coronary occlusion. The electrocardiogram alone may be required as an aid in diagnosis.

Next most common arrhythmia in coronary occlusion is auricular fibrillation with or without flutter. Next in order, heart block of the third stage. Paroxysmal ventricular tachycardia may follow the arrhythmias and finally ventricular fibrillation so often seen just before death. Cardiac irregularities in coronary occlusion may not alter the prognosis except when they bring about a disturbance of the peripheral circulation. About 50 percent of the cases suffering from coronary thrombosis develop murmurs. As a rule these murmurs are systolic in time and may be heard all over the cardiac area. The murmurs are due to dilatation and, as a rule, are not of great significance. Evaluation of the murmurs depends a great deal upon a careful physical examination preceding the acute illness to exclude an old lesion.

Specific aortitis with involvement of the aortic valves may narrow the orifices of the coronary arteries to such a degree as to bring about a thrombosis.

AORTITIS

Fever occurs on the second or third day; as a rule, not higher than one or two degrees. The temperature should be taken by rectum. As the result of shock with cold, clammy skin, dyspnoea, etc., the temperature, orally, may be as much as two degrees lower than the rectal. The greater the area of infarction, the higher the temperature. Fever may continue for two weeks or more. In old age the temperature reaction is less marked than in middle life. If the elevation of temperature rises three or four degrees above normal, the infarction is probably extensive. If the temperature gradually falls, then rises suddenly, the area of infarction is probably increased or mural emboli may be dislodged producing infarction in other organs, such as mesenteric, splenic, renal arteries, or vessels of the brain.

In acute infarctions there is an increase in

leukocytes and polynuclears, possibly 12,000 to 14,000. Polys 80 to 85 percent. With extension of infarction or infarcts into other organs, the white blood cells may rise as high as 25,000 or more. As an aid in prognosis a blood count should be made daily. The increase in leukocytes and polys continues longer than the temperature. The blood count offers a good index as to the condition of the patient. As a rule the sedimentation rate is increased.

ACUTE ABDOMINAL LESIONS

In acute abdominal lesions we usually find a temperature and leukocytosis. Some writers believe that the temperature and white blood cells run higher than in coronary occlusion. It is my impression that a differential diagnosis must be gained by other means.

In coronary thrombosis the great majority of patients show a distinct fall in systolic blood pressure, sometimes as low as 60 to 70 mm. Hg. The heart rate is increased early. The reduction of blood pressure is a most important aid in differentiating angina pectoris from coronary thrombosis; a drop of 50 mm. in coronary occlusion is not unusual. In hypertension with a blood pressure above 200, the systolic pressure may fall as low as 100; however, the reduction, as a rule, is not so great. It is highly important to know the blood pressure previous to the attack to properly evaluate the change following coronary occlusion. It is generally believed that the fall in blood pressure is life saving. It may avoid rupture of the heart. A high fixed diastolic pressure with a continued lowering of the systolic pressure is a grave prognostic sign. In rare cases there may be very little change in the blood pressure. It is generally believed that the patient with a definite drop in blood pressure, followed by a subsequent rise, has the best outlook for recovery. The maximum normal systolic blood pressure for adult life, in spite of age, is 145 mm. Hg., allowing 10 points for overweights.

Next to heredity, as already mentioned, hypertension is an important factor in coronary occlusion. The individual with low blood pressure does not always escape coronary accidents.

A sudden extreme drop in blood pressure may be followed by anuria, uraemia, haematuria, cerebral manifestations and possibly a glycosuria for the first few days after a coronary occlusion. In the absence of a true diabetes the glycosuria has been attributed to shock, pain, fear and emotional strain. The haematuria may be due to passive congestion; however, we must consider emboli dislodged from mural thrombi resulting in infarction of the kidneys. Cardiac weakness may be absent with complete rest; the patient may be free from signs and symptoms of a failing heart, only to become manifest when he attempts to assume a more active life. Rales

are heard at the bases of the lungs, with early edema of the lower extremities. Passive congestion of the liver, with enlargement and tenderness, may be found with indefinite gastro-intestinal complaints. The substernal pain may no longer be a feature during cardiac decompensation to return with restoration of circulation. Other complaints, especially dyspnoea and orthopnoea may give the patient greater concern. Dyspnoea is secondary to a poor pulmonary circulation. If severe, carbon dioxide ventilation is interfered with; the patient may suffer from paroxysmal dyspnoea lasting a few minutes or for hours; pains may occur in the back of the chest, which raises the question of gall bladder involvement but may be a referred pain from the heart after coronary occlusion. With a cough and expectoration of a little blood, we naturally question a pulmonary infarction, secondary to a coronary occlusion.

Infarction is followed by an inflammatory exudate which spreads through the muscle of the heart to the pericardium. The inflamed pericardium may give rise to a friction rub. If anteriorly, the rub may be heard; if posteriorly, the friction rub is not likely to be disclosed by stethoscope. Levine reports a friction rub in 14 per cent of his cases. The absence of a friction rub has no bearing, for the reasons mentioned above. With infarction, the inflammatory exudate may extend to the endocardium as well as pericardium. The inflammation results in the formation of mural thrombi; rarely, degeneration and fragmentation of the heart muscle occur. Fragments of thrombi, as mentioned, may be carried by the circulation to distant organs, resulting in "embolic accidents". Embolism has been reported as high as 30 per cent in coronary occlusion. Emboli lodging in the brain, lungs and extremities promptly give symptoms or physical signs pointing to these organs. Emboli carried to the liver, spleen or kidney may present no symptoms or physical signs involving these organs.

ANEURYSM

Aneurysmal dilatation may be a late complication of coronary occlusion. Aneurysm of the walls of the ventricles are most common; less often around the apex. Kemparer found an aneurysm in 50 per cent by postmortem following death from coronary occlusion. The longer the duration of the aneurysm the less likelihood of a rupture. X-Ray study is not always satisfactory, owing to the location of the aneurysms; however, it affords our best means of diagnosis.

Tricuspid insufficiency is helpful in the diagnosis of infarction of the interventricular septum. The resulting interference with the activity of the right ventricle, owing to the greater pressure in the left ventricle, may bring about

a back-up of the circulation with congestive heart failure. Spontaneous rupture of an aneurysm is always rapidly fatal. As a rule, the patient dies within a few minutes—rare cases have been reported to live a few hours. Needless to state, there is extreme prostration. The radial pulse cannot be palpated. The family physician, if he sees the patient before death, usually hears a loud systolic murmur, even though the circulation is greatly weakened. Levine reports nine ruptures in 46 cases. When the infarction is near the apex, rupture is more likely to occur than in those cases with involvement of the heart more near the base.

In coronary thrombosis at least one-half, or more, of the patients have gastro-intestinal complaints: nausea, vomiting, belching, distention and tenderness. The patient makes his own diagnosis of "acute indigestion", which may overshadow the chest pains and dyspnoea.

As a whole, we may conclude that the suffering from coronary occlusion, in the great majority of cases, occurs between the ages of 45 and 65. Coronary occlusion in women is found late in life in comparison with this ailment in men and is four times less common. This may be attributed to habits of life, such as excessive use of tobacco, alcohol, overwork and overeating on the part of the male. Physical effort, with resulting fatigue, helps to explain the higher incidence of coronary thrombosis in men than in women. (Brookes). Herrick believes that the combustion gases from automobiles is a factor in the production of arterio-sclerosis in men. In reviewing case reports of coronary occlusion, about 78 per cent occur in men.

SYPHILIS AN IMPORTANT FACTOR

In almost all cases of coronary occlusion, we may look for and expect arteriosclerosis of the coronary arteries, which results in myocardial damage. The kidneys are often involved, as well as vascular changes of the retinal blood vessels. Hypertension is present in about 60 per cent of all cases of coronary occlusion. The opinions of several authors in regard to syphilis as an etiological factor vary considerably. Hamman, Riesman and Brookes believe that lues plays a minor role. Connor, Klotz and others are of the opinion that syphilis is an important factor in the production of coronary occlusion, basing their opinion on the Wassermann reaction. In specific aortitis the orifices of the coronary arteries generally are reduced in size. A slowing up of the circulation predisposes to coagulation, with formation of a thrombus. In 160 cases studied by Connor, lues was found in 24 per cent. When coronary thrombosis occurs in the third decade, syphilis is to be suspected, even in the absence of a positive Wassermann.

Diabetes has been found in 18 per cent to

25 per cent of the patients suffering from coronary occlusion.

PROGNOSIS

The prognosis of coronary occlusion cannot be determined by the degree of pain and other symptoms. Patients with minor complaints may pass away showing a high degree of degenerative changes, while other patients with a stormy, acute attack may live through the acute upset, to die later, showing very little pathology. Recovery depends upon the degree of infarction and the condition of the myocardium preceding the acute illness. We cannot rely on clinical signs; no one can predict the outcome in the first two weeks; a good policy is to let the patient know that he is seriously ill.

In earlier years, coronary occlusion was rarely correctly diagnosed. Many mild cases were overlooked. Sudden death was attributed to other causes; hence, statistical data a few years ago should be given little consideration. Levine's text book records a mortality rate 15 to 25 per cent.

If the patient recovers from the acute attack, the average duration of life is about two years. A few patients recover their health and may enjoy life for fifteen or more years and die from other causes. The death rate increases with subsequent attacks. Cowen and Ritchie, 1935, stated that 25 per cent of their patients suffering from coronary occlusion die within a week or ten days; within a month, 25 per cent more. A series of cases reported by Connors had a death rate of 55 per cent after the first attack; Levine 53 per cent; Willius 50 per cent; Hyman and Parsonnett 60 per cent.

Winslow (1936) reports a mortality rate of 20 per cent within a few minutes to six weeks. Thirty per cent survive the acute attack to pass on gradually of heart failure after a few months or a few years. King (1937) records 62 cases of acute coronary occlusion with a mortality of 18 per cent. About one-half of his patients gave a history of anginal pains before the acute onset. Some were free from substernal pains after the occlusion. Palmer (1937) studied 212 cases of coronary occlusion with hypertension living three months after the acute attack. One-fourth enjoyed fairly good health; one-half of the remainder required restriction of physical exercise; the remaining one-half became invalids. Before the occlusion, 30 per cent gave a history of angina; 58 per cent substernal pain on effort afterwards; 13 per cent suffered from congestive heart failure. All of these patients had enlarged hearts. Twenty-eight per cent had subsequent attacks of coronary thrombosis, one-half in two years. The influence of blood pressure had no relation to these attacks; however, cardiac hypertrophy was found more often in fatal cases.

The duration of life after coronary occlusion in 65 fatal cases was 4.2 years.

Masters, Jeffee and Dack, in November, 1936, reported 243 patients in 267 acute attacks, with a mortality rate of 16.5 per cent. For the first attack, the death rate was 8 per cent. Hypertension did not influence the prognosis. Infarction of the anterior and posterior walls of the left ventricle was of equal frequency; no difference in prognosis. Cardiac irregularity disappeared without any specific treatment. The authors object to the use of digitalis, vaso-dilators, adrenalin and ephedrin. For congestive failure they limit fluids and salt and prescribe mercuperin. The diet is restricted to 800 cc., which reduces the work of the heart, lowers metabolism, etc.

The mortality rate of coronary occlusion depends on the size of the infarction, the condition of the arteries, the kidneys, age and constitutional diseases.

ELECTROCARDIOGRAM

"A dying heart may show a normal electrocardiogram". A few patients suffering an acute coronary occlusion may show a normal tracing; however, electrocardiography may prove most helpful as an aid to diagnosis, prognosis and treatment of coronary occlusion. Briefly, the irregularities of the electrocardiogram in coronary occlusion are as follows: (1) "Changes in the QRS complex; deviation of the RS-T segments; inversion of the T waves; low voltage or amplitude often occurs". Within a few hours, or perhaps a few days, as a rule, the T waves in Leads I and II are inverted. The change in the T waves may be transient. After a few days, the inverted T waves tend to flatten out. There may remain in T₁ or T₃ a slight inversion described by Pardee in 1920. It is known as the Pardee or coronary T wave. It is cove shaped. If the damage to the heart muscle is extensive, the electrocardiogram, after a few days, may reveal auricular fibrillation, ventricular tachycardia, or heart block. A single tracing is of little value, since changes occur almost daily. An electrocardiogram may locate the area of infarction. Occlusion of the descending branch of the left coronary gives rise to an infarct on the anterio-lateral wall of the left ventricle near the apex. In such a lesion, the T₁ wave begins on the down stroke of R before it reaches the base line and continues below, producing an inverted T. In the third lead, there is a low take-off from S. The T wave in this lead rises above the base line. Thrombosis of the right coronary results in a high origin of T. The infarct is located on the posterior wall of the left ventricle near the base of the heart. The prognosis of an anterior infarction is more grave than one on the posterior wall, according to the opinion of the majority of

cardiologists. Although the T waves, with improvement of the patient, in due time may assume a normal upright position, the Q wave, if present, remains persistent.

The QRST complexes in pericarditis, dissecting aneurysm, late myocardial fibrosis and grave causes of aortic regurgitation, discussed under differential diagnosis may be quite similar to the change found in coronary occlusion or thrombosis.

DIFFERENTIAL DIAGNOSIS

Angina Pectoris: The typical case of coronary occlusion offers little difficulty in diagnosis. As a rule, in angina pectoris the pain is brought on by exercise, nervous excitement or overeating. A vasodilator, with rest will usually give relief and the patient feel good. In coronary occlusion the pain, as a rule, is more severe; no relief follows with the use of vasodilators. The patient with coronary occlusion is depressed both mentally and physically. Generally there is a marked drop in blood pressure. In angina pectoris there is no fever or leukocytosis, which is the rule in coronary occlusion.

ACUTE SURGICAL ABDOMEN

To exclude an acute abdominal lesion from coronary occlusion may be most difficult. As a rule the pain in coronary occlusion is more severe; collapse is present and is more marked; dyspnoea coming on early points to coronary occlusion. Radiation of pain to the shoulders and down the arms is not the rule in acute lesions of the abdomen. The "leaden gray tint" of the skin over the face, the shock and prostration is not so great in abdominal upsets. The electrocardiogram is an important aid in the diagnosis of coronary occlusion. It is possible that we may have to deal with the two lesions at the same time. Levine believes that in case of doubt an exploratory operation is justifiable. For instance, in a perforated peptic ulcer to delay an immediate operation may endanger the life of the patient. Perforation of a peptic ulcer is followed by severe pain, the abdomen is board-like, which is exceedingly rare in coronary occlusion and generally there is a history of chronic ulcer. Occlusion of the mesenteric artery causes severe abdominal pain, followed by peritonitis and blood in the stool.

Renal infarct brings on pain which radiates downward towards the urinary bladder, with blood in the urine.

Hepatic Colic. The pain radiates to the right shoulder blade. Jaundice may occur; tenderness is found over the right upper quadrant. No time for Graham dye.

Thoracic aneurysm can be differentiated by careful physical and X-Ray examination.

Pulmonary Embolism and Infarction: The symptoms may be quite similar in both condi-

tions; weak pulse, rapid heart, dyspnoea, circulatory collapse. The pain in infarction of the lungs is not so great as in coronary occlusion. In both conditions pain may be absent.

In coronary occlusion, the spitting of blood, if it occurs at all, is later than in pulmonary infarction. The presence of a phlebitis or general sepsis would point to pulmonary embolism. Careful physical examination with X-Ray study of the lungs and history should differentiate pulmonary infarction from coronary occlusion, if the patient is watched from the beginning of his illness.

Pneumothorax: Pneumothorax may present symptoms of coronary occlusion in mild degree. A careful physical examination with an X-Ray picture (if in doubt) should settle the question.

Pneumonia: In pneumonia, we have many symptoms and laboratory findings for coronary occlusion. If questionable, an electrocardiogram, as well as an X-Ray picture, should be made. Elderly patients have been treated for pneumonia with a fatal issue; postmortem disclosed coronary thrombosis.

Diabetic Acidosis: We do not see diabetic acidosis so frequently since insulin has come into general use. During the age period of coronary occlusion, acidosis is rare. Acidosis after middle life is usually brought on by acute illness, i.e. the acidosis is secondary. In acidosis, there is more or less stupor or coma. The breath often has a fruity odor. The urine should be tested for acetone and diacetic acid. Sugar may be present in coronary occlusion; it is always present in true diabetes. A blood sugar estimation will settle the question. The eyeballs are soft in diabetes; the temperature subnormal. One difficulty is due to the fact that in diabetes mellitus, coronary occlusion is not unusual.

Dissecting Aneurysm: The pain in dissecting aneurysm is agonizing and sudden in onset. There is extreme shock and prostration. Dissecting aneurysm is uncommon, while coronary occlusion is far from frequent. As a rule, the aneurysm begins in the ascending aorta and may extend to the bifurcation of the aorta or farther down into the legs. X-ray pictures are of doubtful value. Most text books state that we usually find a typical electrocardiogram in coronary occlusion which helps in diagnosis. By others, this statement is denied. In dissecting aneurysm these authors find tracings similar to coronary occlusion. We may be thankful that dissecting aneurysms are exceedingly rare; the diagnosis is not often made except by autopsy.

Aortic Regurgitation: In late aortic regurgitation we may have a deformity of QRST complexes similar to coronary thrombosis. The differentiation is easily made by physical signs.

Hemiplegia: Mild cases of coronary thrombosis may be overlooked. An embolus may be

dislodged and land in the brain bringing about a hemiplegia. Usually hemiplegia is associated with hypertension. With a low blood pressure, coronary occlusion should be excluded. The general examination should include an electrocardiogram.

Pericarditis: In coronary occlusion, pericarditis occurs in more than 10 per cent of the cases. The electrocardiogram may not be helpful, since we find similar tracings in both coronary occlusion and pericarditis with effusion. Besides in pericardial effusion following coronary occlusion, the usual etiologic factors, septicemia, rheumatic fever and bacterial endocarditis are absent. We must depend on history, physical findings and X-ray differentiation.

DIAGNOSTIC SUMMARY

With severe sudden substernal pain and radiation as already described, dyspnoea which may overshadow the chest pains, shock, exhaustion, ashen pallor, cyanosis, sweating, restlessness, feeble rapid pulse, drop in blood pressure, fever, leukocytosis, increased sedimentation rate, our first thought should be coronary thrombosis. Frequent examinations of the heart should be made for anterior pericardial friction rub. Having the above clinical findings, a friction rub is a pathognomonic sign of coronary occlusion. Repeated electrocardiograms should be made in all cases, but an electrocardiogram is not always necessary from the standpoint of diagnosis. About 80 per cent of our patients suffering from coronary thrombosis have had complaints pointing to the heart, if time is taken to obtain a good history.

TREATMENT

Diet: During the first two to four days the patient refuses all food on account of a gastrointestinal upset with nausea and vomiting, prostration and weakness. Later we may prescribe fruit juices, albumin water, gruels, etc. Owing to nausea and vomiting, dehydration must be watched. The treatment has already been discussed. Later, after two or three weeks, a soft diet may be prescribed. Milk is objected to, on account of gastric upsets, by a few physicians. Carbohydrates are used freely, especially honey and other sweets. For overweights with congestive heart failure, the diet should be limited to 800 to 1,000 cc. In fact, an overweight should limit his diet since excess avoirdupois increases the work of the heart. The usual normal diet may be prescribed after the third week, except for limitation of the acid-ash foods. There is no objection to the moderate use of tobacco, coffee or tea. Alcohol in moderation is not contraindicated, in fact, it may relieve a dull ache around the heart, a complaint of a few patients. Normally alcohol acts as a sedative and a mild

vasodilator. A few patients with coronary occlusion take a "nip" at bedtime and claim they sleep better.

All patients suffering from coronary occlusion should be treated alike from the standpoint of rest. They must avoid worry and excitement; all athletic contests; concern in regard to giving up their job; accept complete invalidism for the present; tobacco harmful; medicinal alcohol may be helpful. The mild cases should not be given too much leeway in regard to physical exercise or in regard to getting out of bed too soon after all symptoms and physical signs disappear. Winterberg believes that the patient with severe manifestations has a better outlook than the man with mild pains, etc., since they are confined to bed longer and receive better care. Too often when the pains disappear, the patient does not always follow the directions of his family physician.

RELIEF OF PAIN FIRST DUTY

The patient who suffers from an acute coronary occlusion or thrombosis complains of severe, intense pains, with few exceptions. In rare cases dyspnoea and orthopnoea may overshadow the pains and is of greater significance. The relief of pain is our first duty; there is no drug equal to morphine. Scott, of Cleveland, recommends $\frac{1}{2}$ grain of morphine sulphate by veins to be repeated in one hour, if necessary; later, smaller doses as required. Levine of Boston prescribes $\frac{1}{2}$ grain subcutaneously, to be repeated in one-half hour; without relief, morphine should be used almost to the point of narcotism. If the patient becomes unconscious and pulseless, prescribe Adrenalin 0.5 to 1 cc. (1/1000). Ether anesthesia is very rarely used for pain of coronary occlusion. For shock and prostration apply heat by hot water bottles, electric pads and blankets.

In the absence of pain, sedatives and hypnotics (such as Luminal, Dial, Amytal, Nembutal or Allonal) may relieve nervousness and restlessness. The bromides must be used with caution and not long continued for fear of chronic bromide intoxication. The barbiturates are preferable with no contraindication. No enemas should be given until the stormy period is passed, even without a bowel movement. On account of sweating and vomiting, dehydration may follow. For this condition one liter of normal saline should be given subcutaneously; some physicians would advise by vein, 100 cc. of 50 per cent glucose. Sodium chloride is recommended owing to the loss of salt by excessive sweating. Many cardiologists use oxygen by tent or intranasal catheters from the beginning of the illness. Oxygen is especially indicated for dyspnoea, orthopnoea, cyanosis and passive congestion of the lungs. Oxygen may relieve the pain. Without a normal pulse, digitalis is contraindicated for fear of

producing rupture, heart block or ventricular fibrillation.

For respiratory distress, besides oxygen, caffeine, sodium benzoate and adrenalin may prove helpful; morphine should be used as required. Adrenalin in 0.3 to 0.5 cc. every two or three hours is our best preparation for heart block, with or without Stokes-Adams syndrome. Digitalis is contraindicated in ventricular tachycardia for fear of producing ventricular fibrillation. Extra systoles, unless frequent, need not be given a concern. For ventricular tachycardia, quinidine is the drug of choice; it may prevent fibrillation. Dose 5 gr. by mouth, four to six times a day. Aminophyllin, metaphyllin, theocin or phyllicin is used by many physicians from the very onset of acute coronary occlusion. These preparations are advertised as vasodilators, especially of the coronary arteries. The dose of aminophyllin is one tablet two or three times a day. Theocin, 3 gr. four times a day is a good diuretic. Phyllicin, 3 gr. is less irritating to the kidneys. It is doubtful whether the xanthine preparations are of any value in acute coronary occlusion, except as a diuretic. (*Am. Heart Jr., Sept. 14, 1937*). With vasomotor collapse low blood pressure, etc., vasodilators do not relieve pain; they may be harmful and certainly are not indicated.

For pulmonary edema, enlarged liver, swelling of the lower extremities due to cardiac weakness, digitalis is generally prescribed and may be continued indefinitely as required; atropine for passive hyperemia of the lungs and respiratory stimulant; if necessary, coramine (1 cc. to 3 cc.) as a cardio-respiratory stimulant may be tried. Rarely it may be necessary to give morphine for restlessness and cough, especially at night. Limit fluid intake and sodium chloride, unless there is marked dehydration. After the first week an occasional saline cathartic will be found beneficial. Without proper diuretic effect from digitalis, add Theocin or Phyllicin if necessary. Later try salyrgan or mercuripurin by vein or novarit suppositories (Merrill). These preparations are mercurials. It may be necessary to use these drugs even though there is a low grade albuminuria. The mercurials may irritate the kidneys, as shown by the increased number of casts. Ammonium chloride, 60 grains per day, may be prescribed along with mercury to aid as a diuretic.

USE INSULIN WITH CAUTION

After an acute coronary occlusion in a patient suffering from a true diabetes mellitus, insulin should be used with caution, unless the patient is showing symptoms of an acidosis with an unusually high blood sugar. Insulin has been known to produce a coronary attack.

Intravenous medication for syphilis with an

acute coronary occlusion is contraindicated. Mercury and the iodides may be given orally after the second week. Syphilis may not be the direct cause of coronary occlusion except when the orifices of the coronaries are partially blocked by a luetic aortitis.

As a rule, the patient should have six to eight weeks of absolute rest. Two or three weeks after the occlusion, the patient may be allowed to go to the bath room with assistance, especially if he has difficulty in using a bed pan. After the period of absolute rest, all exercise should be graduated, depending on cardiac response. The outlook for a posterior infarct is better than an anterior. Cardiologists disagree with this statement. In returning to his former activities, he should be persuaded to limit his work for at least one year. The family physician should periodically examine the patient before and after exercise. An electrocardiogram may prove helpful from a prognostic standpoint. He may return to work if his occupation is sedentary. Manual labor, golf, sexual indulgence, should be given up altogether.

CONCLUSIONS

I have implied and let me emphasize that sudden death hangs over the head of the individual with coronary disease. In coronary occlusion, 8 to 25 per cent die during the first attack, within a few minutes, a few hours or a few weeks; 10 to 15 per cent make a complete recovery and die from other causes. The remainder become semi-invalids and live approximately four years. The patient with angina pectoris lives longer, but sudden death may come at any time. They do not die with an initial attack as in coronary occlusion.

Golden Rule: Following coronary occlusion all patients should curtail their activities. Many exist with stormy periods from over-activity. No one can foresee when lightning will strike. A few would live longer if they had the fear of Damocles when he saw the sword hanging over his head by a single hair.

Tuberculosis Control in Industries

Now more than at any other time, because of the pressure of work, longer hours, and crowded and unsatisfactory living conditions, there is reason for extra precaution so far as tuberculous infection is concerned, both in large and small industries. Many individuals will have to be employed whose health is sub-standard and who should be considered more susceptible to such infection. Therefore, there should be more effort made to extend and maintain proper health supervision, especially in regard to the detection and control of tuberculosis.—W. A. Sawyer, M.D., N.Y.S. Jour. of Med., Jan. 15, 1943.

The Lignin Test

The prevention of calculus anuria following the administration of sulfonamides has received considerable attention, as evidenced by recent reports in the literature. The author has previously described a comparatively simple test by which the concentration of sulfonamides in the urine can be determined before there is danger of calculus formation. The present report gives a more simple method of estimating this concentration.

As we have previously explained, with a sulfonamide concentration of 100 milligrams per cent or more in the urinary tract there is danger of calculi formation. The above test will aid in avoiding the concentrations that are dangerous. Thus, if the reaction is yellow in color the concentration of the sulfonamide in the urine is safe; however, if the reaction is orange then either the drug will have to be decreased or discontinued, the pH increased or the volume of urinary output increased. Again, by this method a maximum dose of sulfonamide can be administered without fear of urinary complications. The lignin paper indicator is used for the control of urinary sulfonamide concretions just as litmus paper is used to control the pH of the urine. This is a very simple and inexpensive test; one that can be done at the bedside of a patient or at any remote or isolated section where equipment and complicated reagents are not readily available. The greatest advantage of this test is its simplicity. It can be applied to three of the commonly used sulfonamide derivatives: Sulfapyridine, Sulfathiazole, and Sulfadiazine.

A very simple and inexpensive test is presented for use in preventing sulfonamide urinary concretions and subsequent anuria.—George K. Kawaicki, M.D., Poston, Ariz.; Urologic and Cutaneous Review, Vol. XLVII, No. 7, July, 1943.

Rest

The clinical importance of rest must arise from some fundamental necessity of living matter. We know that active movements of the organism as well as the active maintenance of rigid or steady states require for their energy source the breakdown of more complex into simpler substances. In contrast with these energetic or destructive phases within the organism, there must occur corresponding restitutive processes—the rebuilding of potential energies. If action depends chiefly on the destruction of energy reserves, rest can be identified as the phase of reconstruction. Doubtless this is the characteristic basis to the chemistry and physics of the human body, which accounts for the universal employment of rest in therapy.—Edmund Jacobson, Ph.D., M.D., Chicago; Ill. Med. Jour., Vol. 84, No. 2, August, 1943.

An Experiment to Determine the Conservation of Vitamin A in the Eye Under Strain

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SO much has been written on night blindness and its connection with a deficiency of Vitamin A, and the proof has been so well established that it is not the purpose of this paper to offer anything further in this regard.

Contrasting colors, especially the soft tones as used in some of our factories, have helped to lessen the accident rate where they have been used to the proper advantage. Eye strain has been lessened to some extent, and better work has been accomplished. This, however, is not always true. The reports of several plants using this system have shown only moderate results.

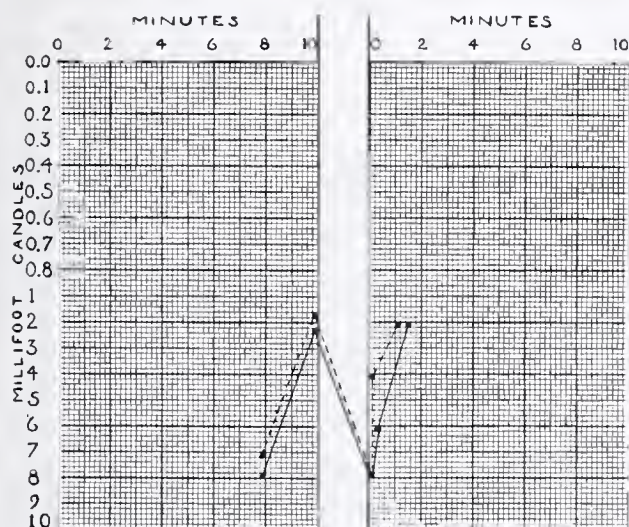


Fig. 1. Case No. 1, M. H., age 21; weight 150. Light source: Verd-A-Ray.

Photo-electric color matching has not proved to be particularly successful.

The subject resolves itself into the question of conserving Vitamin A in the eye.

As the middle spectral rays are the least irritating, especially the softer green tones, the Verd-A-Ray light, offering this combination, was used in the following experiments for the purpose of testing the eye for the conservation of Vitamin A.

A group of six girls who perform a filament-winding operation under two types of light, the regular frosted bulb and the Verd-A-Ray, were used in the experiment. Their operation is tedious, entailing considerable eye strain, and is performed as follows:

Each girl picks up a glass "stem", in which

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molybdenum filament support wires have been inserted. Holding this stem in her left hand, she uses tweezers, held in her right hand, to pick up a filament coil. This filament coil approximates 1½" in length and is only .00181" in diameter. Dexteriously, she then inserts one end of filament and one support into a machine which crimps one end of this very fine filament to one of the supports. Next, she simultaneously twirls the stem and tweezers to wind the fine filament around

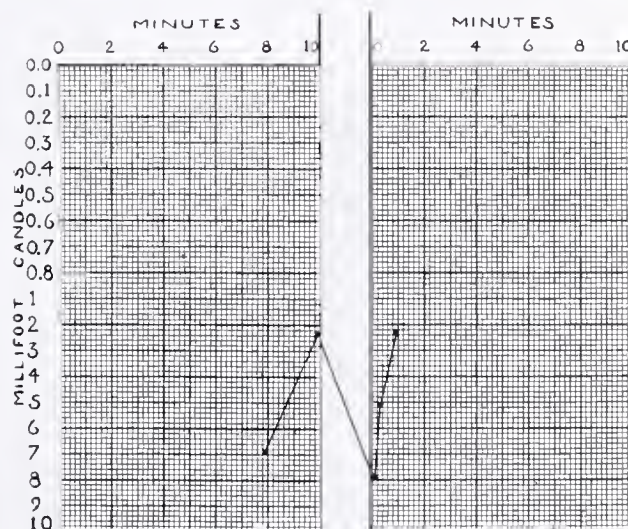


Fig. 2. Case No. 2, V. V., age 22; weight 115. Light source: Verd-A-Ray.

the several other supports, and finally, crimps it again to the last support.

With eyes operating at less than 8" from the crimping machine and the glass stem turning in various positions, it is impossible to avoid striking the operator's eyes several times, as the opera-

tions are performed, with reflection from the light source.

The operators in this group each have an average efficiency of approximately 400 windings per hour.

This means that in eight hours each girl com-

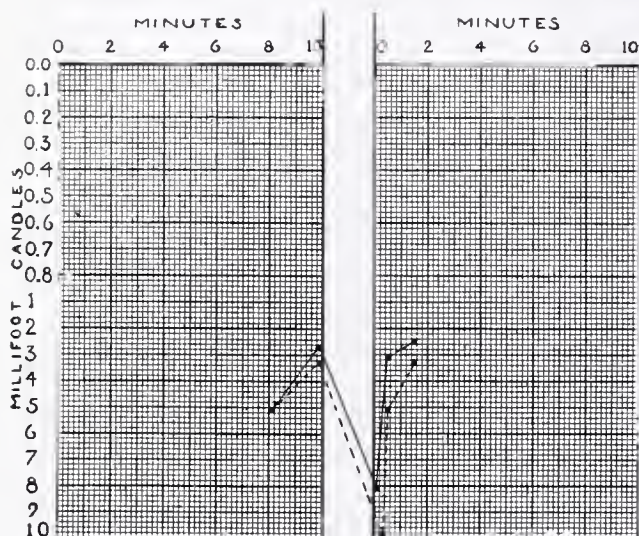


Fig. 3. Case No. 3, M. B., age 26; weight 120. Light source: Inside Frosted Lamp.

pletes approximately 3200 stems, thus performing ten times that number of eye straining operations under the difficult lighting conditions made necessary by the varied nature of those operations.

The girls' were dark-adapted for two minutes, with readings taken of their ability to see a millifoot candle moved in and out of their vision in accordance with the accompanying graphs. At the close of this two minute interval they were

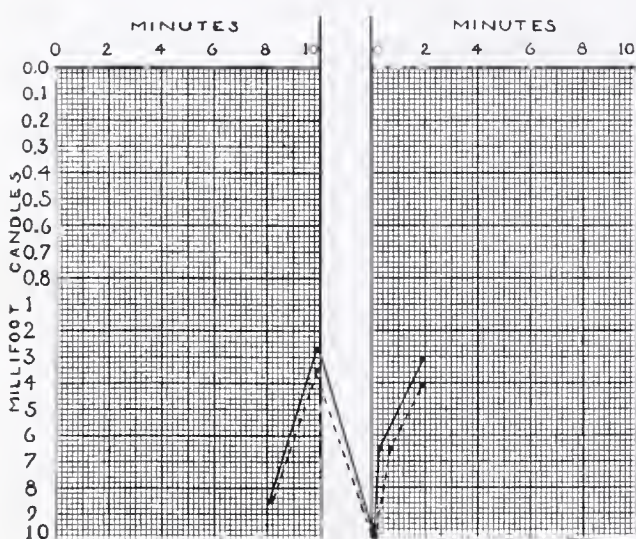


Fig. 4. Case No. 4, K. C., age 26; weight 116. Light source: Inside Frosted Lamp.

subjected to a bleaching, or powerful, light for an additional two minutes. Following this they were again placed in the dark to secure readings as in the first instance. This last reading we called a regenerative reading, as it enabled us to measure

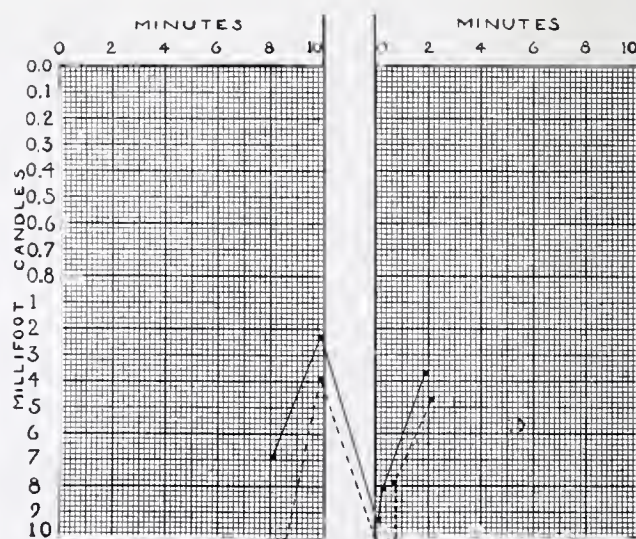


Fig. 5. Case No. 5, D. W., age 22; weight 115. Light source: Inside Frosted Lamp and Verd-A-Ray.

the regeneration of visual purple in the eye after bleaching. We assumed that a subject was normal if the time necessary to regenerate the visual purple was identical to the original reading.

Readings were taken at the beginning of work at 4 p. m., and at midnight. The results at 4 p. m.

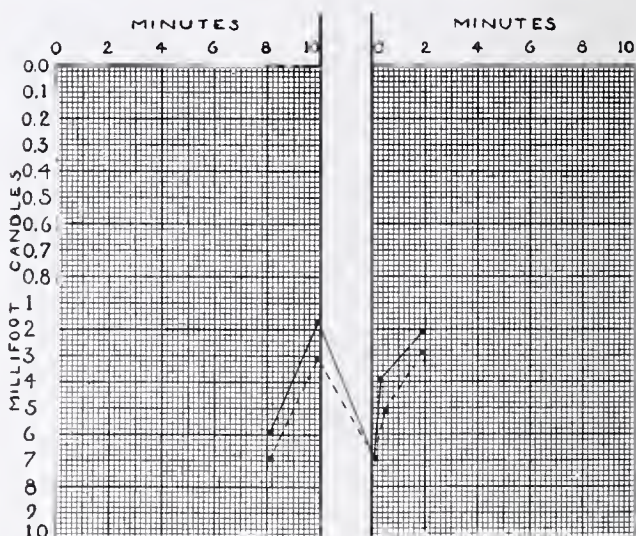


Fig. 6 Case No. 6, G. V., age 22, weight 112. Light source: Verd-A-Ray and Inside Frosted Lamp.

are indicated on the graphs by solid lines; those at midnight, by broken lines.

Case No. 1. M. H., who works under Verd-A-Ray lamp. In the first sitting or dark adaptation, the candle was moved from point 8 (200 feet) to point 2.4 (860 feet). The regenerative period shows a rapid cone response from 8 to 6.1 in twenty seconds and a rod response to 2.1 in one minute and thirty seconds. The results at midnight shows no damage to the eye by work, as the response is more rapid at the completion of the eight hours.

Case No. 2. V. V., working under Verd-A-Ray. The results are particularly interesting because

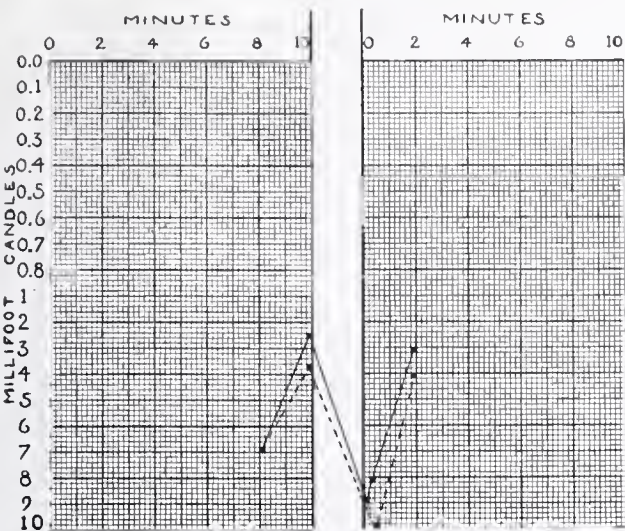


Fig. 7. Case No. 5, D. W., age 22, weight 115. Light source: Verd-A-Ray.

the midnight response is identical to the reading at 4 p. m.

Case No. 3. M. B., working under regular frosted light. The case shows fatigue only at midnight.

Case No. 4. K. C., working under regular frosted light. Results indicate a slight Vitamin A deficiency with the regeneration time showing eye strain.

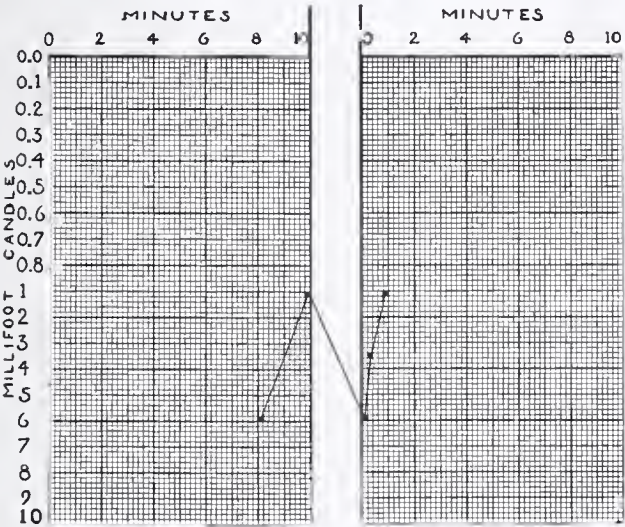


Fig. 8. Case No. 6, G. V., age 22, weight 112. Light source: Verd-A-Ray.

Case No. 5. D.W., working under both Verd-A-Ray and frosted lights. The readings show a Vitamin A deficiency and strain.

Case No. 6. G. V., working under mixed Verd-A-Ray and frosted lights. The graphs indicates a marked Vitamin A deficiency and corresponding eye strain.

The last two cases, being deficient in Vitamin A, were tested further for additional evidence.

The diets of both girls were carefully checked

and they were kept on the same diet while under observation.

Both of these girls were then given 200,000 units of Vitamin A daily, 100,000 at 4 p. m. and 100,000 at midnight, and a week later they were placed under the test given above.

G. V. showed the disappearance of all trace of Vitamin A deficiency and eye strain, and D. W. showed a mark improvement, with no particular damage by eye strain.

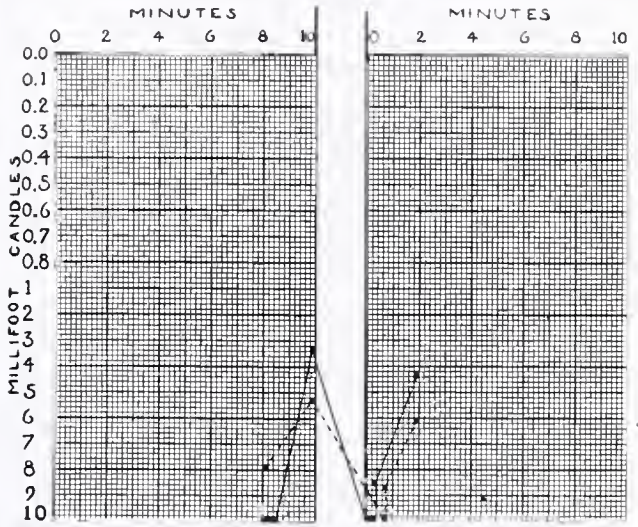


Fig. 9. Case No. 5, D. W., age 22, weight 115. Light source: Inside Frosted Lamp.

When placed again under the frosted light the graphs show a marked strain, and when, after discontinuing oral therapy A, one week later a further check was undertaken, both girls refused to work under the frosted light as, in their own words, "The eye strain was too great."

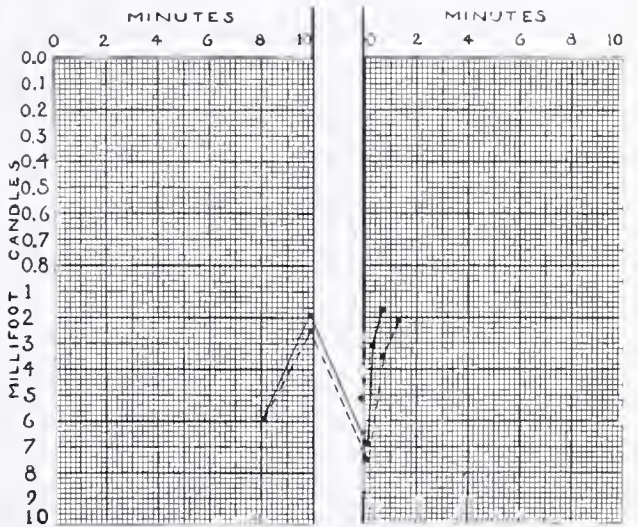


Fig. 10. Case No. 6, G. V., age 22, weight 112. Light source: Inside Frosted Lamp 4 p. m. reading shows complete A recovery.

It is evident from the above tests that there is a marked lessening of eye strain, and a conservation of Vitamin A in the eye, where the Verd-A-Ray lamp is used to illuminate work conducive to eye strain.

The Adequacy of the Photofluorographic Method of Chest Survey*

M. W. MASON, Lt. Comdr., MC-V(S), USNR

WHEN I received an order from my commanding officer to prepare a lecture concerning or directly relating to tuberculosis, I was at a loss to know exactly what phase of the subject would be of most value and interest to you.

Inasmuch as tuberculosis in general is such a vast subject, and as my time was indeed limited by one week's notice, and the time for delivery to 30 minutes, I decided to limit my remarks to one small phase: that dealing with detection of tuberculosis by mass surveys with the photofluorographic method of examination.

We are well aware of the fact that it is of the utmost importance in the control of tuberculosis to find the apparently unsuspected case and place the patient under supervision and treatment to bring about his cure and prevent spread of the disease among his associates.

There is no great problem as far as the moderately advanced and advanced case is concerned because, as a rule, these individuals have sufficient symptoms to lead them to seek professional advice. Naturally we are interested in all types of tuberculosis, but we are primarily interested in those with minimal lesions. These are the individuals who walk the streets of our cities, utterly ignorant of the fact that they have the disease, unknowingly jeopardizing their own lives and those with whom they come in contact.

We have a means at our disposal to find these cases, namely, by use of the X-ray for mass surveys. In years past such surveys were impractical because of the extreme cost; however, as a result of improvement in technique and equipment we have a relatively inexpensive method—photofluorography.

The problem before me at this time is to convey to you that this method of examination is practical, adequate, and reliable. I do not wish to give you the impression that this work is original with me. Several investigators in the past have written upon this subject, giving the general impression of adequacy. I merely wish, through my experience to confirm this impression. I do not know of any better way of doing this than by reviewing my work at the Naval Training Station from beginning to end.

The Author

● Lt. Comdr. Mason is Assistant Medical Officer, Roentgenologist, U.S. Naval Training, Great Lakes, Illinois.

There are four methods of conducting chest surveys. First, by the use of the standard 14x17 inch films. Without any question of doubt this is the best method as far as reliability is concerned. It is, however, impractical for mass surveys because of expense, lack of speed, and the problem of filing. The estimated cost with this method amounts to approximately a dollar and seventy-five cents per case. This amount includes cost of material and repair of machine and does not include cost of labor.

Second, by the use of 14x17 inch paper films. This method is adequate as far as reliability and speed are concerned (seven per minute) but it has its disadvantages; namely, cost which amounts to about seventy-five cents to one dollar per case, plus the problem of filing and the wear and tear on roentgenologist's eyes due to the fact that it is necessary to use indirect lighting which in turn creates considerable glare upon the shiny surface of the paper.

Third, by use of the photofluorographic method, using 4x5 inch films with stereoscopic views. This, I believe to be most adequate. It is inexpensive, with an estimated cost of approximately ten cents per case, is reasonably fast (five per minute), filing is simplified and the film can be attached to the individual's permanent health record, and approximates very closely the reliability of the standard 14x17 inch film. The percentage of error with this method should be as low as that with the 14x17 inch film. These films can be read without magnification.

The fourth and last method is that of using 35 m.m. films. This method is also adequate and reliable, the cost is at a minimum, approximately three cents per case, filing is simplified, and speed is fast. (six to seven per minute).

It has however a slight disadvantage in that due to the size, it is necessary to use magnification for reading and also due to the size it is possible to miss minimal lesions, especially if they are extremely small, and last but not least

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Read before the Summit County Tuberculosis Association, Akron, Ohio, March 10, 1943.

the wear and tear on the eyes of the roentgenologist.

I have had experience with all of these methods and I am not speaking from hearsay. I have had the privilege of reading and reporting upon over 2,000 paper films, over 2,000 of the 4x5, and well over 250,000 of the 35 mm. At the present time we are using the latter and I will elaborate further on this.

The equipment at our disposal consists of a standard 200 M.A. X-ray machine with a movable tube stand. The tube is oil emersed, air cooled and has a stationary anode.

The photofluorographic unit consists of a funnel shaped tunnel with the fluoroscopic screens and grid at the large end and the camera attached at the small end. The camera is a large size Leica with a film capacity of 30 feet, with an F 1.5 lens. The screen-film distance is 36 inches, the tube-screen distance is 40 inches.

The tube and camera unit are fixed in position and the patient is raised or lowered in front of the screen by means of an electric elevator. Each patient is measured for thickness of the part to be X-rayed. The K. V. and time are varied according to this. The film used comes in 100 foot rolls, this is cut into 33 foot lengths to fit the camera. Each filling of the camera will accomodate 200 exposures. The developing of the films is relatively simple, standard solutions being used. The time consumed in processing the film, that is developing, fixing, and drying, is usually about one hour.

As a routine, an average speed of 240 cases an hour is maintained, although on a few occasions we have done as many as 420 cases per hour. It was found that a rate of 240 an hour was most economical as far as wear and tear on the tube and machine were concerned. The average life of a tube was found to be about 35,000 exposures. One tube gave 10,000 exposures while another gave 140,000. We have to date used six tubes in all for a total of well over 300,000 cases.

The largest number of cases for one day was 3,200 and the largest month was 41,989. The speed of interpretation with brief reports is 400 per hour. Our department consists of 14 X-ray technicians and one roentgenologist. Six of these men are used to operate the machine and dark room, the others are engaged with the clerical work.

The system we use is more or less universal throughout the armed forces. Each man entering our station has a micro-film taken of his chest. The films are identified with the patient by means of the date and a number. The reports for our files are kept on cards which have on them the name of the man, his company number, date of his examination and a number which

corresponds to the number on his film. There is a space at the bottom of this card for diagnosis. This card is kept for our permanent files and the microfilm is placed in a small envelope which is attached to the man's health record which in turn is sent to the Bureau of Medicine and Surgery in Washington, D.C.

If anything of a suspicious or pathological nature is found in the micro-film, the individual is called back for a recheck with 14x17 inch film. If the diagnosis now is of pathological significance, the patient is referred to the Naval Hospital for disposition.

At the hospital he is again given thorough examination and his case is submitted to a board of medical examiners for final decision. If the medical board decides the case to be—for example, an active case of tuberculosis, the patient is released from the service, sent home and the Red Cross notifies the Board of Health in his home town of the facts and they in turn see that he has proper care and supervision. A careful record of all such cases is kept at the Naval Hospital.

Thus far I have dealt entirely with the techniques of mass survey and especially that of the use of the micro-film and now I have a report to submit, based upon 270,060 cases examined, using the 35 m.m. technique. These 270,060 cases represent a good cross section of the male population of our country.

They are from all walks of life and from all parts of the country. Their ages ranging from 17 to 45 with the vast majority occurring in the 18 to 35 age group.

REPORT OR PHOTOFLUOROGRAPHIC
CHEST EXAMINATION

	TOTAL	%
1. Number of 35 mm. films taken	270,060	
2. Number of check standard 14 x 17	2,918	1.08
3. Number rejected due to X-ray findings	954	0.35
A. Tuberculosis	700	0.259
B. Other findings	254	0.09
4. Number of negative findings	246,952	91.04
5. Number of abnormal findings	24,108	8.96
6. Number of pulmonary tuberculosis	18,634	6.89
A ₁ Active reinfection type	372	0.137
A ₂ Inactive reinfection type	147	0.05
B Active primary type	6	0.002
C ₁ Inactive primary type of future significance	44	0.016
C ₂ Inactive primary type a. Healed primary complex	6,978	2.58
b. Calcified hilar nodes	11,563	4.26
c. Calcified tracheo-bronchial nodes	132	0.049

D ₁ Multiple calcification and massive calcification of hilum	135	0.049
D ₂ Miliary calcification in lung parenchyma	218	0.080
E. Fibrinous and sero-fibrinous pleuritis	66	0.024
7. Other diagnoses made whether cause for rejection or not (35mm.)		
Cardiac enlargement and abdominal configuration...	1,661	0.61
Tortuous aorta	23	0.0085
Dextracardia	47	0.017
Prominent pulmonary conus	59	0.021
Mediastinal tumors	24	0.0088
Atelectasis	16	0.0058
Eventration diaphragm	23	0.0085
Bronchiectasis	23	0.0085
Pnuemothorax	8	0.0029
Ununited fractured clavicle ..	3	0.0011
Rib tumor	2	0.0007
Pneumoconiosis	7	0.0015
Pneumonitis	55	0.0203
United fractured clavicle	19	0.0070
Calcified cervical nodes	3	0.0011
Fractured ribs	23	0.0085
Anomalies ribs	921	0.340
Cervical ribs	174	0.064
Azygos lobe	202	0.074
Rib resection	24	0.0088
Congenital absence of ribs ..	1	0.0003
Scoliosis	731	0.27
Spina bifida	4	0.0014
Hemothorax	1	0.0003
Hydrothorax	2	0.0007
Tumor of diaphragm	1	0.0003
Substernal thyroid	1	0.0003
Lung cyst	2	0.0007
Diaphragmatic adhesions	94	0.034
Pericardial adhesions	2	0.0007
Elevation of diaphragm	68	0.025
Megalo-colon	2	0.0007
Pulmonary abscess	2	0.0007
Hemivertebrae	23	0.0085
Fractured vertebrae	3	0.0011
Matallic foreign body thorax ..	2	0.0007
Emphysema	1	0.0003
Thickened or calcified pleura ..	31	0.0114
Hypertrophic arthritis spine ..	2	0.0007
Lung tumor	1	0.0003
Foreign body shoulder	1	0.0003
Ununited epiphysis, scapula ..	1	0.0003

As to the accuracy of this report we have a definite check. At the end of each month films and reports are returned to our station from the hospital with data concerning correction or diagnosis and disposition of the patient. For a basis upon which to figure percentages I have chosen two average months, a total of 41,616 cases. Incidentally this is in addition to the before mentioned cases.

1. Number rechecked by 14 x 17 inch film	317	0.76
2. Number sent to hospital for disposition and confirmation of diagnosis	112 or 35% of rechecks	
3. Number of confirmed diagnoses	96	85.7

4. Number of diagnoses changed	16	14.28
a. Active tuberculosis to inactive tuberculosis	7	
b. Pneumonitis to atypical pneumonia	3	
c. Active tuberculosis to atypical pneumonia	2	
d. Inactive primary tuberculosis of possible future significance to—no significance	4	

I wish to give credit at this time to Lt. (jg) H. M. Weiselberg, Lt. Comdr. J. W. Jones, Lt. Comdr. M. A. Thomas and Comdr. T. G. Clement who examined 60,000 of these cases.

Since the beginning of our survey four cases previously diagnosed as negative have been hospitalized with active tuberculosis. Two of these were found after two months of service, one after four months, and one after six months. Two are still in the hospital, prognosis questionable, and two surveyed from service. As far as these four cases are concerned there are two possibilities to account for this.

1. Because of the smallness of the X-ray film and the size of the lesion, they were missed; or the lesion was seen and an error in diagnosis was made.

2. The diagnosis was correct in the first place; namely, negative and the condition developed after entry in the service. I am unable to say which applies, but will assume the first possibility to be correct.

There is no doubt that this survey has been of value, not only to the government but to the patient and contacts in his community.

Seven hundred of the 270,000 cases were discharged from the Service with tuberculosis. All of these cases have been placed under treatment. Many of them will undoubtedly become quiescent or arrested, and by proper supervision the spread of the disease prevented.

In conclusion I am of the opinion that the photographic method of chest survey is inexpensive, reliable, and adequate. Of the two methods I believe that 4x5 to be the best, from the standpoint of reliability as its accuracy very closely approximates the accuracy of the 14x17 standard film method. But, even though I do not believe the accuracy of the 35 m.m. method approaches that of the former method, it is however adequate enough for practical purposes.

In closing I wish to thank you for your invitation for me to speak to you. Also I wish to extend my thanks to Captain H. L. Dollard, my commanding officer, for giving me the opportunity. Also Commander T. G. Clement for his kind assistance in the preparation of this paper and last but not least the members of my crew, whose excellent work made this possible.

Latent Brain Abscess

HARRY M. SALZER, M.D.

TWO cases of latent brain abscess are reported, one case being of especial interest because of the close temporal relationship between the performance of a spinal encephalogram and rupture of the abscess into the ventricular system.

The occurrence of latent abscesses is not as common as abscess formation within a few months of the onset of an infection. Tuffier and Guillian¹ in a series of 73 cases of post traumatic abscess found 34 (46 per cent) appeared within three months of the injury; 15 (20 per cent) within a year and 16 (20 per cent) after more than a year following the injury. Gowers² stated that abscesses occasionally followed war injuries of the head so many years later that the traumatic incident was sometimes forgotten.

Urechia³ reported the case of a soldier struck by a bullet in the left parietal region in 1915, who in 1932 developed sudden headache and right Jacksonian attacks. He was found to have neck rigidity and a purulent cerebrospinal fluid. Inasmuch as this patient improved markedly after a spinal puncture, the family refused intervention and the patient left the clinic. This case is suspiciously like one of latent abscess but was not definitely proved.

Case 1. A. C., age 17, white male, was admitted to the Cincinnati General Hospital after having been thrown from an automobile during an accident on June 20, 1928. He was not unconscious but seemed to be "dreamy" and was disoriented and bellicose. There was a contusion and hematoma in the right frontal area, ecchymosis and edema of both eyelids and free bleeding from the nose. X-ray examination revealed a depressed fracture in the right frontal area. No further details could be made out because the films were unsatisfactory. At operation a depressed fracture was found; small bone fragments were removed along with the outer plate of the frontal sinus and depressed fragments were elevated. Slight drainage continued for 15 days and the patient was discharged on July 5, 1928 with a draining sinus in the right forehead.

On July 29, 1928 the patient became irrational, had amnesia at times and wandered away from home. He was readmitted to the hospital on August 2, 1928 in a partially stuporous condition. He vomited several times. X-rays revealed "a tremendous intracerebral pneumatocele on the left evidently arising from the left frontal sinus" and there was evidence of a fracture through both walls of the left frontal sinus. This fracture had not been seen on the previous X-ray studies. The white blood count was 7,600; cerebrospinal fluid pressure was 240 mm. of water. On August 17, 1928 the skull was trephined and the pneu-

The Author

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matocoele was aspirated. Convalescence was uneventful and he was discharged on August 25, 1928 although X-rays on August 24, 1928 failed to reveal any diminution in size of the pneumatocele.

In out-patient clinic on October 26, 1928 it was noted that the patient was forgetful, irritable and he assumed queer positions. His wound was entirely healed and general examination revealed nothing abnormal.

On December 26, 1929, 16 months after the previous admission, the patient was readmitted with a history of forgetfulness and recurrent episodes of amnesia, variable in duration and frequency; during which he would wander away from home. After these amnesic spells his head felt "funny" and numb. X-ray examinations now showed absorption of the pneumatocele, the old fracture line could be seen only with difficulty and the trephine opening was indistinctly made out. A lumbar puncture on December 28, 1929 revealed a pressure of 160 mm. of water and 20 cells (type not stated). On January 3, 1930 a spinal encephalogram was done, 100 cc. of air being injected. X-ray showed considerable air over the convolutions but the ventricular system was normal. On January 6, 1930 the patient had his first major convulsion.

On August 17, 1933 the patient was sent to the psychiatric service by the Probate Court because he had been having convulsions for two years. He had been discharged from his work as a grocery delivery boy because he slept on the job. Starting in March 1933 he wrote worthless checks to buy used cars. He sold his mother's furniture for \$4.00. A few weeks before his admission his convulsions had increased in frequency and severity. Neurological examination revealed nothing abnormal and the cerebrospinal fluid pressure was 700 mm. of water. X-rays showed no evidence of fracture.

September 19, 1933 another encephalogram was done, 95cc. of air being injected. The ventricles were normally filled and without displacement or encroachment. Little air was present in the subarachnoid spaces.

The last admission was to the neurological service on October 16, 1933. The patient had awakened from sleep with nausea and vomiting; he became excessively drowsy and rapidly developed a stiff neck, pain in the occipital region and upper back. The temperature was 102.6 degrees F., respiration rate 24 and pulse 92. The pupils were sluggish, almost fixed to light. There

Submitted April 23, 1943.

From the Neurological Service of the Cincinnati General Hospital and University of Cincinnati College of Medicine.

was a left Babinski and a hyperactive left knee jerk. There was dysmetria on the left finger to nose test. The Brudzinski and Kernig tests were positive. The cloudy cerebrospinal fluid was under a pressure of 170 mm. of water and there were 3,759 cells, 86 per cent of them polymorphonuclear leukocytes. A culture was negative but a smear revealed an occasional gram negative diplococcus. Therefore the patient was given antimeningococcus serum. He became progressively worse and expired on October 24, 1933.

Post-Mortem: Gross post-mortem examination revealed a large fluctuant area in the tip of the left frontal lobe. There was erosion of the inner table of the left frontal bone with an oval perforation into the frontal sinus, which contained purulent exudate. In the left frontal lobe there was a smooth walled cyst, 5 centimeters in diameter, filled with cloudy thick yellow fluid. The anterior wall of this abscess was continuous with the dura and pia overlying the perforation in the frontal bone and the posterior wall had ruptured into the anterior tip of the left lateral ventricle, which contained thick yellow pus.

DISCUSSION

This patient had a chronic frontal abscess which evidently could have been relieved. Unfortunately the encephalogram carried out in September, 1933 failed to reveal any filling defect. On the contrary it is probable that the encephalogram hastened death. The reduction of intraventricular pressure removing support from the posterior abscess wall may have hastened its rupture into the left lateral ventricle.

Carpenter⁴ noted that pneumoventriculography might be hazardous in the early stages of brain abscess. He thought that it was not particularly dangerous in chronic cases.

Pendergrass⁵ thought that the only contraindication to encephalography was a pressure of 20 mm. of mercury or more in the horizontal lateral position. He⁶ did not mention brain abscess as a contraindication to encephalography, but stated that brain abscess with or without slightly increased intracranial pressure could be localized by air studies.

Grant⁷ recognized that thin walled abscess may be ruptured by encephalography but felt the information to be gained fully justified the risk involved.

The following case is of interest because of a latent period of nine years between a stab wound in the frontal area and death from meningitis.

Case 2. P. C. Age 38, colored female was admitted to the neurological service of the Cincinnati General Hospital on December 12, 1933 with a history of right fronto-parietal headaches of one month's duration. The day before admission she complained of severe neck pain and aching in the legs. There was a history of stab wounds in the forehead, chest and arm in 1924.

On examination two scars were found over the right forehead, the longer (10 cm.) was just to the right of the midline and beneath it was a linear depression 3 cm. long running vertically up the right frontal bone. Photophobia and poor cooperation made examination of the left disc impossible; the right disc was normal. The deep

reflexes were all absent except the biceps which were reduced. There was a positive Brudzinski and bilateral Kernig.

Cerebrospinal fluid examination revealed a pressure of 320 mm. of water. The fluid was cloudy and contained 1400 lymphocytes and the sugar content was 40 mg. per cent (blood sugar 170 mg. per cent). The cerebrospinal fluid culture was negative. The blood Kahn was strongly positive, the spinal fluid Wassermann was negative. The colloidal gold curve was 0000123333.

The patient's temperature rose steadily, her coma deepened and she expired within five days of entry.

Post Mortem: A triangular piece of bone, 3 cm. on all sides was fractured out of the right frontal bone. This piece of bone lay beneath the two scars on the forehead. A thin fibrous membrane resembling dura was seen in the fracture line. When the calvarium was opened, the fracture was seen to have extended through the skull and the dura was adherent to the inner surface of the fracture area.

There were two small abscesses filled with thick, yellow pus in the right frontal lobe. The large abscess, measuring 2 by 2 cm., was superficial and lay just beneath the point at which the dura was adherent to the calvarium. No connection to the subarachnoid space could be demonstrated. Medial and posterior to this abscess lay a smaller abscess with a definite capsule.

Neither abscess opened into the ventricles. A smear of the pus from the abscess showed cocci in clusters.

SUMMARY

Two cases of latent brain abscess are reported, one occurring five and the other nine years after fracture of the skull.

In one case rupture of the abscess into the lateral ventricle and meningitis occurred four weeks after a "normal" encephalogram.

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*Dr. Robert Hawkins prepared the abstract of Case 2. The valuable criticism of Dr. Chas. D. Aring is acknowledged.

Case Finding in Early Adult Life

Case-finding efforts in adolescence and early adult life should be directed toward persons having recent household contact with sputum-positive tuberculosis. Prolonged supervision of persons exposed during childhood is not indicated unless household exposure is continued or recurs in adult life.—H. L. Israel, M.D. and H. DeLien, M.D. *Amer. Jour. Pub. Health*, Oct. 1942.

A Study of 27 Cases of Chronic Subdural Hematomas

W. JAMES GARDNER, M.D. and E. W. SHANNON, M.D.

IN reviewing the files of the cases of subdural hematomas at the Cleveland Clinic Hospital, 27 cases were found which had had complete cerebrospinal fluid studies. These cerebrospinal fluid findings are reported here.

Lumbar puncture was done in all of these cases, and in 14 the pressure was above normal, if 200 mm. of water is considered the top normal value. Protein determinations were done on all of the cerebrospinal fluids, and the values found are shown in Chart I.

CHART I

Protein Content of Cerebro-Spinal Fluid	Number of Cases
10 mg. % to 20 mg. %	2
20 mg. % to 30 mg. %	6
30 mg. % to 40 mg. %	9
40 mg. % to 50 mg. %	2
50 mg. % to 60 mg. %	2
60 mg. % to 70 mg. %	4
70 mg. % to 90 mg. %	0
90 mg. % to 112 mg. %	2

There was no correlation between the protein content of the fluid and the color, as 18 of the 27 cases showed xanthochromia, while in nine the fluid was clear and colorless; of these nine, the protein was elevated above a normal of 40 mg. per cent in three.

An Ayala index was calculated on all cases in which the initial pressure was 150 mm. of water or more. This index was determined in 17 cases and was 5.6 or less in 13 of the 17. Any value of 5.6 or less is strongly suggestive of an expanding intracranial lesion. As was pointed out by Gardner, these hematomas increase in size as a result of the breaking down of the blood protein with a consequent increased osmotic pressure. The four cases in which the index was above 5.6 had an increased cerebrospinal fluid pressure above the normal of 200 of water. The differential diagnosis in these cases usually lies between a subdural hematoma and an intracranial neoplasm; in both of these conditions, the spinal fluid pressure is generally elevated, and the Ayala index is below 5.6, so that this test is of little value in differentiating these two conditions.

In this series of cases, there were only three women, which in all probability is due to the greater incidence of trauma in men. This is the usually accepted explanation for the disproportion of subdural hematomas in men and women.

The Authors

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The distribution as to age is shown in Chart II.

CHART II

Age	Number of Cases
10 to 20 yrs.	3
20 to 30 yrs.	1
30 to 40 yrs.	2
40 to 50 yrs.	5
50 to 60 yrs.	9
60 to 70 yrs.	7

It is apparent from the chart that this condition is most common in the age group above 40 years, as 21 of these cases are in this group. There is no adequate explanation for this other than the supposition that perhaps in the older age group the blood vessels are less elastic and more prone to tear. The blood pressure was determined in 24 of these cases at the time of admission, and only in two cases was there any evidence of even mild hypertension, being 156/84 and 160/100 respectively. Thus, it cannot be stated that hypertension is a factor in the etiology of subdural hematomas.

In five of the cases there was no history of head trauma, and in one case it was very questionable. The interval between the trauma and the hospital admission in the other 21 cases varied from one week to 20 weeks, as shown in Chart III.

CHART III

Interval between trauma and admission.	
1 to 3 weeks	1
3 to 6 weeks	5
6 to 9 weeks	6
9 to 12 weeks	3
12 to 15 weeks	4
15 to 18 weeks	1
18 to 20 weeks	1

In view of the fact that three of the 27 cases had bilateral subdural hematomas, it seems wise to do a bilateral trephine at the initial operation.

The Urine Alcohol Test and the Drunken-Driver In Cincinnati

OTTO P. BEHRER, M.S. and CARL A. WILZBACH, M.D.

ALCOHOL is an important primary cause of traffic accidents. Although much progress has been made in developing and applying methods for handling drunken drivers, it was only after the introduction of the chemical test of body fluids as evidential aid that the trial of the drunken driver has been placed on a practically satisfactory basis.

The difficulties in proving a driver was intoxicated or had consumed sufficient alcoholic liquor to impair his driving efficiency are numerous.

It would seem that this determination of fact would be simple, but experience has demonstrated that it is quite difficult. In the absence of the chemical test of body fluids, the defendant's attorney often will raise the issue of sedative drugs, injuries or pathological factors, and many other causes in explanation of the physical condition of his client at the time of arrest.

The alcohol concentration of the body, even when the above conditions are present, is the best method for determining the causative factor for the nervous manifestations and incoordination present in the accused person. It is at once evident that the degree of intoxication important in this respect is not that which deprives a person of the power of speech, locomotion, etc., but rather his ability to operate a motor vehicle.

The term "intoxicated" or "drunk" may mean many things to different people depending upon their definition of the term, hence it is advisable to use the phrase "driving under the influence of alcohol".

This expression embraces any impairment of the normal reactions to the extent they affect one's ability to operate a motor vehicle in a safe manner. It is a matter of common knowledge that different persons vary widely in their response to alcohol and that some people are affected more than others after drinking the same amount of intoxicating liquor. It should be pointed out at the beginning that chemical tests for alcoholic intoxication are a measure of the concentration of alcohol accumulated in the blood, and are not an exact measure of the amount of alcohol consumed.

Newman* has recently reported certain observations on the basis of which he concluded that

*Alcohol and Driving—Newman. Quarterly Journal of Studies on Alcohol, Vol. III, No. 1, 1942.

Submitted June 17, 1943.

The Authors

● Otto P. Behrer, M.S., Cincinnati, Ohio, is superintendent, Bureau of Laboratories, Cincinnati Board of Health.

● Dr. Wilzbach, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1922; fellow American Public Health Association; member American Neisserian Medical Society; health commissioner, City of Cincinnati.

"at blood alcohol concentrations above 0.15 per cent (urine 0.2 per cent) all subjects showed some demonstrable effects of alcohol, and hence this concentration of alcohol should be adequate proof of being under the influence of alcohol insofar as the ability to operate a motor vehicle is concerned".

It is evident that many persons having this concentration of alcohol in the blood or urine may pass certain individual driving tests, but when subjected to a battery of tests their mental coordination, decisions and reactions show impairment to such an extent as to justify the judgment that their driving ability has been reduced.

The National Safety Council has publicized the facts obtained in research work on alcohol, together with the recommendations of the Committee on Motor Vehicle Accidents of the American Medical Association concerning interpretation of the chemical tests of body fluids. When the alcohol concentration of the urine is 0.07 per cent or less the subject is not greatly incapacitated; when the concentrations in the urine ranges from 0.07 per cent to 0.2 per cent a considerable number of people may be under the influence of alcohol; all persons having urinary alcohol concentrations above 0.2 per cent may be assumed to have been under the influence of alcohol at some time in the not too distant past.

Since the odor of alcohol is apparent even after the first drink we might assume that many drivers would be arrested unnecessarily, but such is not the case. Chemical tests therefore are useful in clearing the innocent of suspicion and unjust accusations.

We have just completed one year in Cincin-

nati using the urine alcohol test as corroborative evidence in the trial of persons charged with driving under the influence of alcohol. During 1942 the Cincinnati Police Department submitted 224 urine samples which were examined for alcohol content, sugar, acetone and sedative type of drugs. Of this number, 204 tests represented persons charged with driving while under the influence; the other 20 specimens were taken from dead pedestrians and auticides for evidence of intoxication. A study of the 20 fatalities showed 13 definitely intoxicated; three showed evidence of drinking and the remaining four cases were free of alcohol. Of the 204 persons arrested for drunken driving, seven were found to have insufficient alcohol to sustain the charge and dismissals were requested by the prosecution.

One individual who was charged with driving under the influence was dismissed when the urine analysis test showed no alcohol.

Eleven of the drivers had alcohol concentrations from 0.07 per cent to 0.19 per cent.

One hundred and thirty-two drivers had alcohol concentrations from 0.20 per cent to 0.29 per cent.

Urine Alcohol %	Straight Alcohol	3.2% Beer	6.0% Beer	Whiskey or Gin
0-.19	2.5-3.0 Oz.	6- 9 bottles	4- 6 bottles	5- 6 drinks
.20-.29	4.0-6.0 Oz.	12-18 bottles	8-12 bottles	8-12 drinks
.30-.39	6.0-8.0 Oz.	18-24 bottles	12-18 bottles	12-16 drinks
.40 upwards	8.0 Oz.	24+	16+	16 drinks

Forty-two drivers had alcohol concentrations from 0.30 per cent to 0.39 per cent.

Four drivers had alcohol concentrations from 0.40 per cent upward.

Classifying the 189 persons above into four groups based on alcohol concentration and body-weight of the individual, we arrive at the minimum amounts of alcoholic beverages imbibed by the average driver who is arrested for driving while intoxicated, as shown by the accompanying table.

A study of the above table shows that the average drunken-driver has consumed no less than 4 to 6 ounces of pure alcohol or its equivalent, which would be 12 to 18 bottles of 3.2 beer or 8 to 12 drinks of 100 proof whiskey or gin.

The foregoing facts should prove to the public that urine-alcohol tests do not penalize the moderate social drinker, but do expose and aid in convicting the drunken-driver who has consumed a large amount of alcohol. As used in Cincinnati the urine-alcohol concentration plus the facts concerning the physical condition of the arrested person at the time the specimen was collected are the criteria for determining intoxication. This is in harmony with the researches of Newman, Widmark, Bogen, Mirsky, Heise,

etc., and the recommendations of the American Medical Association.

In our studies carried out on subjects who had consumed definite amounts of alcoholic beverages, and in the personal observations based on over 250 persons arrested for drunkenness or driving under the influence of alcohol, there was a positive correlation between the objective symptoms and the urinary alcohol concentration in all but seven cases.

Unlike many other cities, Cincinnati requires its police officers to file charges of "driving under the influence" based upon his personal observations of the defendant at the time of arrest; the urine alcohol test is used as corroborative evidence in assisting the courts and juries.

The success of the Cincinnati program for the control of the drunken-driver can be attributed to the cooperation of the City Manager, Board of Health, Academy of Medicine, Safety Council, the members of the Highway Safety Bureau and the Prosecutor's Staff.

Too much praise cannot be given the entire group of Municipal Court Judges, for they have been very cooperative in understanding and interpreting the expert testimony presented and at

the same time safeguarding the constitutional rights of the defendant.

Acknowledgment is likewise made to Dr. Sidney Levine, of the Cleveland Police Department, Dr. Herman Heise of Milwaukee, and Dr. Robert Gibson of the University of Iowa for their kindness in analyzing urine alcohol tests submitted for checking purposes.

Black Widow Spider Bite

Because of the pronounced abdominal symptoms which are frequently associated with the bite of the black widow spider, it is desirable for all surgeons to be familiar with the syndrome in order that unnecessary operations may be avoided. Relatively little attention, however, has been given to this subject in the surgical literature.

A careful history is exceedingly important, as patients frequently fail to recognize the causal relationship between the spider bite and the severe abdominal pain. The absence of abdominal tenderness and the presence of movement of the abdomen with respiration are important differential features in recognizing the syndrome. Specific antiserum given relatively soon after the bite appears to be the most rational form of therapy.—Major Harwell Wilson, M.C., A.U.S.; Jour. Tenn. S.M.A., Vol. XXXVI, No. 8, Aug., 1943

Renal Complications Following Single Intravenous Injections of Sodium Sulfadiazine

Report of Two Cases

NATHAN SHAPIRO, M.D., HENRY S. BLOCH, and LEON SCHIFF, M.D.

IN the course of a study on gastric excretion of sodium sulfadiazine* in man¹, comprising 60 observations on 45 subjects, we encountered two incidents of severe renal complications following a single intravenous injection of 5 grams of sodium sulfadiazine. Since we are aware of but one case report of similar experience², we wish to report our own observations which include one case of anuria and one of ureteral colic. Selection of a 5 gram dose of sodium sulfadiazine was based on the early studies of Peterson et al³ and the fact that such a dose is in frequent use therapeutically.

Case No. 1 was a normal white man, age 60, weighing 61.4 Kg. He had been previously studied on March 10, 1942, and had at that time received 5 grams of sodium sulfadiazine intravenously with no ill effects. As far as we are aware, he had taken no sulfonamides since that time. On Sept. 24, 1942, he had eaten a regular breakfast at 7 a. m., and after a six-hour period in which no food or liquid was taken, reported to the laboratory. A Rehfuess tube was inserted into the stomach and connected to a constant suction apparatus which was attached to a motor pump. After 115 cc. of "basal" gastric secretion had been collected during a half hour period, 100 cc. of physiologic saline was administered intravenously. This was followed by 100 cc. of saline containing 5 grams of the sodium sulfadiazine which was followed in turn by another 100 cc. of physiologic saline, the entire injection requiring about one-half hour. Aspiration was continued for one and a half hours, and a total of 300 cc. of gastric juice was obtained (including the basal secretion). Two and a half hours after completion of the intravenous injection the patient complained of severe pain in the region of both costovertebral angles. The pain did not radiate and was so severe that he writhed on the examining table.

Physical examination was not remarkable except for tenderness over both costovertebral angles. Large quantities of artificial Vichy water were forced by mouth. The patient managed to pass about 5-7 cc. of sanguinous urine about four hours after the injection but only after considerable urging and straining. He was then hospitalized on the Genito-Urinary Service of the Cincinnati General Hospital at 7 p. m. on Sept. 24, 1942. He was given 1000 cc. of saline containing 5 grams of sodium lactate intravenously and fluids were forced. Between 7 p.m. and 8 a.m. the following morning he voided only 1.5 cc. of grossly

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bloody urine which microscopically was loaded with sulfadiazine crystals. Because of the virtual anuria, cystoscopy was performed at 8:30 a. m. the same morning (Sept. 25). Both ureteral orifices were seen to be blocked by sulfonamide crystals. A catheter was introduced into the left ureter, breaking up these crystals, and was then passed on upward into the left kidney pelvis. Entrance into the right ureteral orifice could not be effected. The left kidney pelvis was irrigated with saline and the ureteral catheter left in place. The kidney pelvis was irrigated with warm water every hour thereafter. In the late afternoon the patient felt considerably relieved and was passing blood-tinged urine in appreciable quantities. On Sept. 27 the ureteral catheter was removed, and on Sept. 28 the patient was discharged. The blood chemistry findings during the period of observation are listed in Table I.

Kidney function studies done four weeks after recovery showed a maximum urine concentration of 1.030, and a 30 per cent phthalein output fifteen minutes after intravenous injection, with a total of 70 per cent in the first hour. The mean urea clearance was 63.5 per cent, representing slight impairment of function. The blood urea nitrogen was 17 mg. per cent and the urinalysis negative.

Case No. 2 was a white woman age 44, weighing 62.7 Kg., with atrophic gastritis and post-histamine

*The sodium sulfadiazine was kindly furnished by the Lederle Laboratories through Dr. J. M. Ruegsegger.

Submitted May 14, 1943.

From the Department of Internal Medicine, University of Cincinnati Medical School, and the Gastric Research Laboratory of the Cincinnati General Hospital. Part of a study aided by a grant from the National Cancer Institute.

achlorhydria. On the day of the test she, too, had eaten a regular breakfast six hours before coming to the laboratory where she was subjected to the same procedure as case No. 1.

One hour after the 5 grams of sodium sulfadiazine had been given intravenously, she developed a sudden severe pain in the left costovertebral angle and a few minutes later, left ureteral colic. At this point the study was terminated, a total of 42 cc. of gastric juice having been aspirated. She became nauseated and complained of severe left-sided pain radiating into the vagina. She then voided clear urine. About fifteen minutes later she passed about 50 cc. of grossly bloody urine containing sulfadiazine crystals on microscopic examination. Alkaline fluids were forced. The pain diminished gradually, but she continued to void small amounts of grossly bloody urine at frequent intervals. She was given 1 grain of codeine and 1/150 grain of atropine and hospitalized for the night. Fluids continued to be forced. The sulfadiazine blood level at the end of an hour (when the study was terminated) was 22 mg. per cent. She was discharged from the hospital the next morning. Kidney function tests done a month later, including phthalein output, urine concentration test, and urea clearance were all normal. The blood urea nitrogen was 12 mg. per cent and the urinalysis entirely negative.

TABLE I

Date	Time	Blood		Blood After i.v. Completed (hours)
		B.U.N. mg. %	Sulfadiazine Level mg. %	
9-24-42	2:30 pm	---	17	1
	3:00 pm	---	15	1½
	6:00 pm	---	15	3½
	7:00 pm	41	---	---
9-25-42	9:30 am	---	10	20
	4:30 pm	38	8.4	27
9-26-42	9:30 am	20	2.2	44
	4:30 pm	---	1.0	51
9-28-42	9:30 am	---	0	16

The rapidity with which the renal manifestations appeared, namely one to two and a half hours after the intravenous injection, was quite striking. It is noteworthy that the individual with the more severe manifestation had had a similar dose of the drug about six months before without untoward effects.

It should be pointed out that the conditions of our studies may differ from clinical circumstances, since fluids were withheld for a preliminary six-hour period and gastric contents were removed during a two-hour period. However, in the presence of vomiting, the conditions may be comparable. The blood concentrations existing in these cases were similar to those of the other subjects we studied who did not develop renal complications.

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3. Peterson, O. L.; Straus, E.; Taylor, F. H. L., and Finland, M.: Absorption, Excretion and Distribution of Sulfadiazine (2-Sulfanilamido-pyrimidine), Am. J. M. Sc. 201:357 (March), 1941.

Tracheobronchial Lesion

Although the sputum test, the chest roentgenogram, and the bronchoscopic examination are essential for confirming the diagnosis and for proper treatment, the tuberculous tracheobronchial lesion need rarely be confused with asthma if a careful clinical history is obtained and a good physical chest examination is carried out. The wheeze produced by the tuberculous lesion is usually well localized over the site of involvement and is always, in the early state, unilateral. It is loudest over the corresponding parasternal region and often presents localized vibrations to the palpating hand. The sound of the wheeze is usually well transmitted up the trachea and is readily heard when the stethoscope is placed at the suprasternal notch. This finding may be even more pronounced when the lower third of the trachea is involved in addition to the lesion on either side.

The wheeze due to a tuberculous lesion is persistent and, even if temporarily absent on quiet breathing, can be produced at will by forced expiration. The source of the wheeze cannot be dislodged by cough or expectoration. The chronicity and persistence of the wheeze are sharply contrary to the paroxysms of asthma, and furthermore, the symptoms are but little relieved by the administration of adrenalin or ephedrine. Although the wheeze can be best localized by use of the stethoscope, it is usually easily audible to the patient and to other individuals nearby, thus providing a quite noticeable clue to the presence of a disease ordinarily distinguished by the insidiousness of its onset.

In the present series of patients the predilection of tuberculous tracheobronchitis for women is striking. Bronchial carcinoma in men was reported by Halpert in a series of 8862 necropsies as exceeding those in women by a ratio of 10 to 1. Thus the symptom of chronic wheezing in women would seem an infrequent indication of the presence of bronchial malignancy. If sputum tests are negative for tubercle bacilli, however, the bronchoscopic examination would be the next essential in either sex. Jackson and Jackson state that "wheezing heard at the open mouth means cancer of the lung more often than asthma."

Wheezing as a symptom of foreign body in the bronchi is apt to be transitory. The accompanying bronchial inflammation and mucosal swelling usually produce occlusion of the airway within a few hours or days. The distinctive symptom of wheeze is soon replaced by cough, fever, and purulent expectoration, suggestive of lung abscess, and still later, of bronchiectasis.—John S. Packard, M.D., Allenwood, Pa.; Pa. Med. Jour., Vol. 46, No. 10, July, 1943.

Abscess of Lung and of Brain as Complications of "Lysol" Poisoning*

E. F. KOSTER, M.D.

W H., a colored male 54 years old, first entered City Hospital Aug. 25, 1942, because he had willfully taken by mouth an unknown quantity of "lysol". He had been given emergency treatment consisting of emetics and a gastric lavage with alcohol and water at another hospital and was then transferred. After drinking the "lysol" he complained of severe burning epigastric and substernal pain and developed a painful cough. There were no signs of shock. His respirations were moderately rapid, pulse was 90 and blood pressure 140/60. The tongue and pharynx were reddened and there were numerous coarse rhonchi throughout the chest. There was slight epigastric tenderness but no spasm or rigidity. He was given gastric lavages with 10 and 30 per cent sodium sulfate and reddish-brown fluid having the odor of phenol was removed. Following this the blood pressure fell to 90/40 and there appeared to be impending shock. Upon the administration of intravenous glucose solution and applications of external heat, the blood pressure returned to normal. The lavage tube was left in place for several hours. The urine was dark brown. Urinalysis showed a specific gravity of 1.025 and 2 plus sugar. The leucocyte count was 18,700 per cubic millimeter. The blood urea nitrogen and icterus index determinations were within normal limits. The roentgenogram of the chest taken the day following admission showed "no evidence of parenchymatous infiltration". During the first few days of his hospital stay he complained of sore throat and had a cough productive of large quantities of purulent fluid. He improved rapidly and was discharged on his eleventh hospital day, September 4, 1942.

He was readmitted Sept. 14, 1942, because of chest pain, fever and a cough productive of a foul-smelling yellow sputum. At this time his physical examination was negative except for pain on pressure over the left midaxillary line between the sixth and eighth ribs and rales associated with slight dullness over the base of the left lung. On the day following readmission his leucocyte count was 23,600 per cu. mm. and erythrocyte count 4,000,000 per cu. mm. Repeated sputum examinations were negative for tubercle bacilli. On Sept. 27th and again on Oct. 6th the patient coughed up a little blood. On Oct. 7th, under local anesthesia, a segment of the eighth rib was removed. An abscess cavity was located and drained. A coughing seizure during the procedure expelled a large portion of necrotic foul-smelling lung tissue from the thoracotomy wound. The postoperative course was not eventful until Oct. 27th when he suddenly experienced a convulsive seizure of the right arm. On Oct. 30th he had two more convulsive seizures, tonic and clonic, involving the

right arm, the right hemithorax and the neck. There was residual paresthesia of the right hand and forearm. A diagnosis of brain abscess was made but because localizing signs were not convincing surgical treatment was not given. More convulsions of similar nature followed. The patient rapidly weakened and died November 18, 1942.

The clinical diagnoses were: Lung abscess, left lower lobe, due to "lysol" poisoning; recent thoracotomy; postoperative brain abscess.

Autopsy (No. 14691) disclosed a large multilocular foul-smelling abscess cavity within the anterior parietal region of the left cerebral hemisphere. It was largely within the white matter but superiorly and laterally it involved the deeper layers of a small segment of cortex. It measured 5x4x3 cm. and its long axis extended from the cortex about 3 cm. to the left of the midline downward and inward to the outer margin of the anterior horn of the lateral ventricle. It opened into the ventricle at this point. The surfaces of the cavity walls were rough and bordering the cavity there was a zone of pale yellow, soft tissue about 2 to 3 mm. wide. The basal ganglia were not involved except that the cavity bordered on the superior surface of the left caudate nucleus. Microscopically, the abscess wall proved to consist of necrotic brain tissue covered by a fibrinous exudate. There was no gliosis.

There was an abscess cavity in the upper part of the lower lobe of the left lung which opened to the external surface of the body through the thoracotomy wound. Immediately surrounding the lesion, the pleural space was obliterated by thick fibrous adhesions. The abscess cavity measured 5.5x3.5x2.5 cm. The cavity walls were lined by a dull, friable, reddish-brown material. The cavity had a fibrous wall and the immediately adjacent pulmonary tissue was consolidated. Microscopic sections of this portion of the lung showed this to be an organizing bronchopneumonia. In the right lung there was a multilocular cavity measuring about 5x3x3 cm. It was located just beneath the pleura of the interlobar fissure. It contained a grayish-brown, foul-smelling, thick fluid. The adjacent lung was necrotic and showed a suppurative bronchopneumonia but no organization. Several similar but smaller abscess cavities were present in the mediastinal portion of the same lobe. The largest was 2 cm. in diameter. No abscesses were found elsewhere in the pulmonary tissue. There was bronchopneumonia in the posterior dependent portion of the upper lobe. There was widespread chronic bronchitis and slight fusiform dilatation of bronchi in the lower lobes.

A mixture of streptococcus viridans and staphylococcus aureus was recovered on culture from both the blood stream and the lung parenchyma. A short-chained streptococcus found in the brain was lost on transplants and could not be further identified.

The important pathological diagnoses were:

*Selected by H. T. Karsner, M.D., from the Clinical Pathological Conferences at Cleveland City Hospital as the seventeenth of a series of cases to be published under the heading "Case Records Presenting Clinical Problems."

Organizing abscess of left lung with surgical drainage; focal abscesses and gangrene of right lung; suppurative bronchopneumonia, bilateral; chronic bronchitis with moderate cylindrical bronchiectasis; abscesses of left cerebral hemisphere with focal acute leptomeningitis; arteriosclerosis (aorta, marked; coronary, marked stenosing; pulmonary, slight).

DISCUSSION

It cannot be proved that the appearance of lung abscess following "lysol" poisoning was not purely coincidental but the chain of events strongly suggests an etiological relationship.

An irritant such as phenol when ingested causes not only esophagitis and gastro-enteritis but may, as a result of inhalation of fumes, cause inflammation of larynx, trachea and bronchi. Another cause of lung abscess to be considered is aspiration of gastric contents either during the act of vomiting or during one of the lavage procedures. Gastric contents alone, disregarding the probable presence of "lysol", can cause bronchopneumonia. Aspiration pneumonia frequently is followed by abscesses and necrosis of pulmonary tissues. The most common cause of brain abscesses, with the possible exception of otitis media and its complications, is suppurative pulmonary disease. The transport of bacteria from the lung to the brain is undoubtedly through the blood stream. Two possible mechanisms are considered. The lesion in the lung may erode pulmonary veins. The bacteria enter the veins, are carried to the left atrium and thence by systemic arteries to the brain. Why the brain is especially affected is not clear. The other possible mechanism is by way of vertebral veins. Coughing may increase pressure within the thorax so that blood passes into the vertebral veins and may carry microorganisms. These then flow with the blood to the head. Just how they get into the brain is not fully explained.

This case emphasizes the fact that pulmonary complications may occur following ingestion of corrosives and that precautions must be taken to minimize the dangers of aspiration. If the patient vomits, he must be constantly aided and placed in a position for proper drainage of the mouth and pharynx. This is especially important if he be lethargic or comatose. Gastric lavage is a necessary procedure but can in itself be a hazard, and care and skill are needed in this procedure. Introduction of the tube induces vomiting and its presence prevents complete clearing of the throat, thereby increasing the likelihood of aspiration.

Space does not permit a review of the treatment of phenol poisoning, but question may well be raised as to the lavage with alcohol before he was sent to the hospital. To be sure, that form of treatment is recommended in several text books,

but as Johnston¹ points out, alcohol should not be given by mouth or used for gastric lavage because its solvent action increases the rate of absorption of phenol from the stomach.

In this case, surgical operation on the brain was considered. It was apparent, however, that the abscess could not have been walled off and that in these circumstances the operative mortality is high. Furthermore the signs did not permit of reasonably accurate localization of the abscess.

1. Johnston, R. T.: *Occupational Diseases*, W. B. Saunders Company, Philadelphia, 1942, p. 174.

Corneal Ulcer

I feel that ophthalmologists in general do not appreciate the importance or the value of small doses (3 units) of insulin in treating corneal ulcer and other inflammatory lesions about the eye. The stimulating effect that is apparently produced by these small doses is surprising, and they may be given twice a day; usually, however, one dose per day is distinctly helpful.

Occasionally the ophthalmologist sees a young patient with acute and marked tenderness swelling of the eye following swimming. There is usually a history of a rise of temperature, often to 103 or 104 F., accompanied by chills and a rapid closing of the eye. X-ray will show a clouding of the ethmoid cells and frontal sinus. These findings represent an acute fulminating frontal sinus infection and the usual curved intra-orbital incision is indicated, followed by a small trephine opening in the floor of the frontal. This will relieve the pressure and afford drainage, which is all that is necessary. Great care should be taken to manipulate the tissues as little as possible and no attempt at manipulation should be made inside of the frontal sinus. If these patients are not treated early and if surgical drainage is not instituted, meningitis and acute osteomyelitis often result. Such acute cases do not come often in one's practice but when they do, rather courageous treatment is necessary. I am coming more and more to the conclusion that it is not necessary for patients with acute frontal sinus infection to suffer over a long period, especially where there is a history of repeated attacks or one attack each winter. If the infection is several days old I do not hesitate to cut away the anterior ethmoid cells and enter the frontal sinus with a Pratt ring curette, using care not to rasp the mucous membrane from the nasal frontal opening.—Henry M. Goodyear, M.D., Cincinnati; W. Va. Med. Jour., Vol. 39, No. 8, August, 1943.

Extra Uterine Pregnancy Following a Hysterectomy

B. F. SHREFFLER, M.D. and ROBERT F. ZELLER, M.D., Mansfield, Ohio

THE history of the recognition of pregnancy, it is said, proceeding outside of the uterus, the gradual understanding of its gravity and the development of modern methods of its treatment, forms one of the most fascinating episodes in that epitome of human intellect, its brilliancies and its lamentable failures, the history of medicine.

No better example of the above statement can be found than in our case of a white female patient age 35, the mother of two normal children delivered by normal methods. Two years ago this patient had a hysterectomy performed by the usual abdominal low incision, the uterus being incised at the corporocervical junction and closure of the salpinx and remaining uterine tissue over the cervical stump. Thus only the uterus and appendix were removed leaving the ovaries and salpinx. Following this a normal recovery resulted with no symptoms developing except each regular menstrual period there was a slight flow of menstrual blood lasting about two days, and being no more than spotting. No pain or clots or heavy flow occurred at these times.

These periods were uninterrupted until December, 1942, when no spotting or flow of menstruation occurred. Along with the cessation of menses the symptoms of lassitude and increased appetite occurred. January, 1943, again no menstruation and February the same. About the middle of February the patient suddenly developed severe pain in the right side at the area of the right salpinx. This pain was severe enough to keep the patient in bed for three days then it abated. Associated with this pain was a feeling of nausea and also a burning of the breast tissue. The nausea persisted and a visit of the patient to the physician's office for a complete examination revealed only an abdominal mass above the symphysis about three fingers and on vaginal examination this mass was found to be attached to the cervical stump and in the area of the right salpinx and ovary. The mass was freely movable without pain and was diagnosed to be a probable ovarian cyst. The cervix was discolored and the cervical stump freely movable.

The middle of April the patient again returned for another examination and this time the tumor mass had greatly increased in size so that it was nearly up to the umbilicus and extending about three inches on either side of the midline.

The Authors

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The diagnosis was then made of an ovarian cyst probably on a twisted pedicle. Surgery was immediately suggested to the patient. The patient did not however go in the hospital until the first week in May. At this time the admission temperature, blood count and physical findings were all normal except this freely movable mass apparently attached to the cervical stump and right salpinx. No X-ray or other tests were made.

The abdomen was opened through the previous hysterectomy scar with the pre-operative diagnosis of ovarian cyst. Upon opening the peritoneal cavity a large pedunculated mass evidently attached to the cervical stump and extending above the umbilicus by an inch, was exposed. Upon an attempt to elevate this mass out of the cavity, it ruptured, spilling its contents of amniotic fluid and a fetus of approximately five months duration. Following the cord to its maternal attachment much difficulty was encountered in the form of bleeding from many points and as the tissue was very friable, considerable time and blood was lost in getting this under control. After separation, isolation and ligation, complete examination was possible and the following conclusions were reached:

1. Definite diagnosis of an extra uterine pregnancy of approximately five months duration, whose placenta and origin was the remaining uterine tissue from the corporocervical junction downward with slight increase in uterine tissue from the pregnancy, and the salpinx of the right side.

2. That corporocervical hysterectomies do not always eliminate the possibility of pregnancy, especially if the salpinx are sutured over the remaining cervical stump. This case was definitely good surgery and a good type of corporocervical hysterectomy had been performed.

3. That if a little more serious study had been given this case, and including an X-ray film, or if even the slightest suspicion of pregnancy had been present, later surgery probably would have produced a live baby.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

COLLEGE CAMPUSES IN THE FIGHT AGAINST TUBERCULOSIS

The Twelfth Annual Report of the Tuberculosis Committee of the American Student Health Association gives striking proof of the value of a tuberculosis control program as a regular part of the student health service. In the 311 progressive colleges and universities (total student enrollment, 558,075) reporting such programs, 744 new cases of tuberculosis were discovered, a rate of 133.5 new cases per 100,000 students. At 177 colleges (total student enrollment, 146,000) which provided no such programs, 11 new cases came to light, a rate of 7.5 per 100,000 students. Twenty-two food handlers were found to have pulmonary tuberculosis, and among faculty and other administration officers, 40 new cases were discovered, thus bringing the total of new cases found in colleges during the school year 1941-1942 to 817.

Few diseases impose such costly and far-reaching penalties for public or personal failure to provide early diagnosis as does tuberculosis; yet the majority of institutions of higher education in this country still fail to employ modern tuberculosis case-finding methods, which are simple and not expensive. The years of disability and suffering and the financial cost involved will reach staggering proportions, and there will be numerous deaths whenever we neglect early diagnosis of tuberculosis.

It is estimated that the complete cost of finding an undiscovered case of tuberculosis among college students on now unprotected campuses might run as high as \$166. This may seem expensive to some, who do not take into account the social and economic values involved in the early diagnosis of the disease. Failure to provide modern case-finding programs, however, will invariably prove far more costly to unfortunate individuals, families and communities, and can never rebound to the credit of a negligent institution.

The tuberculin test provides the most sensitive and reliable index of the prevalence of tuberculous infection. In the young adult group, for the country as a whole, 21.8 per cent of students react to tuberculin, the east and west coast section having a higher infection rate than other sections of the country.

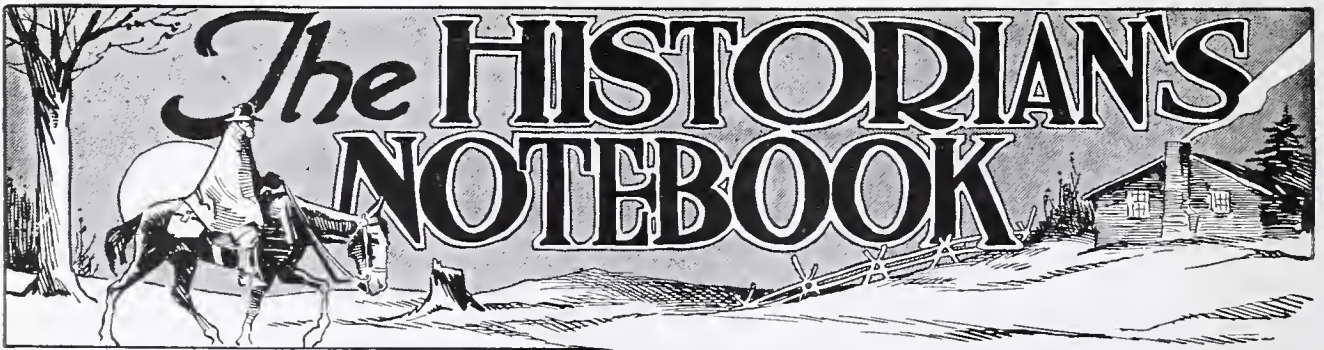
Many of the older, largely exploded, ideas relating to tuberculosis seem still to be firmly lodged in the minds of many people. The belief

is all too prevalent that early tuberculosis gives rise to early symptoms. Certain institutions report various procedures for the follow-up of "suspects." "Weighing at frequent intervals," "frequent temperature readings," are among the more common of these. The "suspects" are usually those students who are markedly underweight. The Committee therefore feels justified in emphasizing again the fact that the tuberculin test and the chest X-ray provide the only adequate means for the early detection of presymptomatic tuberculosis in the vast majority of cases.

Although it is not possible to speak in exact terms of the incidence of tuberculosis as applying to the country's student population, reports available to the Committee seem to indicate a decline of approximately 30 per cent in its prevalence among college students during the past six years. This may be on the conservative side, for during this period reports from many of the larger institutions conducting excellent case-finding programs indicate an extension of these procedures to include a higher percentage of their students. It is evident that more students are being examined each year and the technics employed have improved and become more effective.

During the school year 1942-1943 the committee enlisted the cooperation of a group of eastern colleges in a study of entering students approximately 10,000 in number. Information concerning each student includes age, home address, name and location of secondary school attended and whether a private, public, or parochial school; tuberculin test technic and results; and X-ray findings. It is hoped that this survey may continue without interruption for a period of ten years or longer, thus providing data indicating differences in the prevalence of tuberculous infection among students from various states and various home communities, accurate yearly comparisons, as well as supplying an index of any changes in the prevalence of tuberculous infection among students in this area.—H. D. Lees, M. D., *The Journal-Lancet*, April, 1943.

We know that tuberculosis is caused by the tubercle bacillus, but we also know that malnutrition, fatigue, dust, poor ventilation, poverty and overcrowding are contributing factors.—Henrietta Landau, Pub. Health Nursing Consultant, U.S.P.H.S. *Hoosier Health Herald*, Oct. 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Treatment of Gun-Shot Wounds in Frontier Ohio

PHILIP D. JORDAN, Ph.D

THE early frontier was patterned by ax and rifle. Stalwart men, swinging the blade which bit into forest trees and defending themselves with temperamental weapons, frequently met with accident and disaster. Incised wounds, of course, were no novelty to the nineteenth-century physician, but gun-shot wounds during the formative years of pioneer medicine and surgery demanded new skills. No vegetable materia medica would suffice as treatment for a settler who lay gasping on a puncheon floor with a gaping chest wound. *Lobelia inflata*, capsicum, and a steam bath were woefully inadequate to handle torn flesh and fractured bone. A linsey-woolsey or fustian shirt-tail stuffed by a perspiring frontier doctor into a hole punched by a lead bullet was useless treatment. Even the fumbling probe and the sharp lancet did more harm than good. Medicine was slowly impelled to devise new techniques for new misfortunes.

Eighteenth and early nineteenth-century surgical instruments necessary for the treatment of gun-shot wounds were rudimentary. If a physician were well equipped he might possess in his saddle-bags a set of amputating instruments, a set of trephining instruments, a case of pocket instruments, and some crooked and straight needles. However, when one remembers that there were only six sets of amputating instruments distributed among fifteen regiments of Washington's army on July 3, 1776 one may hazard a guess that the average doctor was poorly prepared.

In addition to this type of surgical instrument, the early physician sometimes was the proud possessor of a scalpel or incision knife used for dilating wounds and a pair of forceps for extracting bullets. Some military surgeons who had served during the American Revolution eventually were to emigrate to the Ohio country and many more soldiers who had felt the sting of

The Author

● Dr. Jordan, Oxford, Ohio, associate professor of history at Miami University, is well-known to the readers of "The Historian's Notebook." His articles devoted to medical history have appeared in many state and national journals. Research for this discussion of gun-shot wounds in the nineteenth century was made possible, in part, by a grant from the Alumni Loyalty Fund of Miami University.

British lead or who had seen their comrades treated for gun-shot wounds were to take the long trail that led past old Fort Pitt into the fringe of the Northwest Territory. Men such as these carried with them rudimentary surgical knowledge gained from the campaigns of the Revolution. This information was to prove useful during the early days of Ohio's settlement when the Indian menace meant warfare, wounds and death.

It was fortunate, indeed, that a few military surgeons took copious notes on the nature of gun-shot wounds and incorporated these into early texts which came into the hands of some of the early doctors of Ohio. The scientific treatment of gun-shot wounds began with the publication of these books. Two of these were to be of aid to the Buckeye doctor. The first was written by Dr. John Jones, professor of surgery in King's College (now Columbia University), who published in 1775 his *Plain Concise Practical Remarks on the Treatment of Wounds and Fractures*.

The second—and the one which exerted the more influence—was the work of a British military surgeon, who had seen service in the expeditions to Bellisle and Portugal in 1760. Thirty years later Dr. John Hunter was appointed inspector-

general of hospitals and surgeon-general of the British army. The first of these appointments, said Hunter in an introduction to his volume, *A Treatise on the Blood, Inflammation and Gun-Shot Wounds*, "gave me extensive opportunities of attending to gun-shot wounds, of seeing the errors and defects in that branch of military surgery, and of studying to remove them." By 1823, so popular had Hunter's work become that two American editions had been printed and were being used extensively from the Atlantic seaboard, through the bloody ground of Kentucky and Tennessee, and into the Ohio country.

The use of Hunter's volume no doubt improved the surgical technique which Dr. James Thacher, army surgeon during the American Revolution, found so revolting. "Amputating limbs, trepanning fractured skulls, and dressing the most formidable wounds," wrote Thacher in his diary for October 24, 1777, "have familiarized my mind to scenes of woe." Hunter's text, then, was to mitigate to some slight degree at least the horrors of battlefield wounds.

In general, Hunter recognized that most gun-shot wounds whether from grape, musket ball, cannon ball, or shell were contused wounds "from which contusion there is most commonly a part of the solids surrounding the wound deadened, as the projecting body forced its way through these solids, which is afterwards thrown off in form of a slough, and which prevents such wounds from healing by first intention, or by means of the adhesive inflammation, from which circumstance most of them must be allowed to suppurate." It was Hunter's belief that inflammation in gun-shot wounds was less than in wounds in general, but he cautioned that inflammation might only be delayed in making an appearance. He divided gun-shot wounds into two classes—simple and compound. The former occurred when a ball passed into, or through, only soft parts; the latter when the ball did more serious damage, such as striking bone, a large artery or when brain, lung, heart or abdominal viscera were injured.

Ohio physicians were cautioned by Hunter not to follow the generally accepted principle of dilating the mouth of a gun-shot wound in the belief that such technique would promote healing. "No wound," cautioned Hunter, "let it be ever so small, should be made larger, excepting when preparatory to something else, which will imply a complicated wound, and which is to be treated accordingly; it should not be opened because it is a wound, but because there is something necessary to be done, which cannot be executed unless the wound is enlarged."

Dilating gun-shot wounds was approved only under certain specific conditions. Hunter approved the practice when an artery was impaired and when it was necessary to dilate the mouth of the

wound in order to tie off the bleeder. He also approved of dilation in wounds of the head when a skull fracture was suspected. Again, he thought dilation advantageous if the surgeon could extract fractured bone through an enlarged opening. He approved also of the same method when "some extraneous body which can with very little trouble be extracted, and where the mischief by delay will probably be greater than that arising from dilation." Hunter also advocated enlarging wounds in the belly when the surgeon believed he could repair or replace in its proper position some vital organ, and finally he urged dilation when it would relieve the patient as, for example, by diminishing pressure caused by a ball on the skull, rib or sternum.

Caution also was urged in the use of the bullet forceps and the probe. Such instruments were to be manipulated only if the ball lay near the mouth of the wound when removal would be relatively easy, or if the ball lodged directly under the surface of the skin and therefore could be removed without deep incision or penetration. Hunter again and again warned that excessive probing, use of the forceps, and dilation of the mouth of the wound did more harm than good. Such advice was invaluable in correcting the prevalent tendency to use instruments for instruments' sake.

Penetrating wounds of the abdomen, of course, offered a greater test of the surgeon's skill than did the simpler wounds just described. Here again Hunter felt that discretion was the better part of surgery. If the wound did not injure stomach, bladder, gall-bladder, or blood vessels, it was recommended that it be left alone as far as probing was concerned. If, however, some vital organ was struck treatment was to be made "according to the nature of the wounded part, with its complication." Unfortunately, Hunter did not outline procedure in such cases, although something of his method may be implied by a study of his treatment of specific individuals.

One such instance involved an officer struck by a ball "on the right side, just below the last rib." The bullet traveled under the skin and appeared on the opposite side. As the ball lay close to the skin's surface, it was cut out and "a clyster of warm water was ordered and a draught with confec. card. as a cordial, with twenty drops of laudanum." Later Hunter wished to repeat the laudanum, but the patient was too weak and died the following morning.

Post mortem revealed that the ball passed "directly in, pierced the peritoneum, entered again the peritoneum, where it attaches the colon to the loin, passed behind the ascending colon, and just appeared at the right side of the root of the mesentery, where the colon is attached; passed behind the root of the mesentery, and entered the lower turn of the duodenum as it crosses the

spine; then passed out of the gut on the left of the mesentery, and in its course to the left side, it went through the jejunum, about a foot from its beginning, then through between two folds of the lower part of the jejunum, taking a piece out of each, then passed before the descending part of the colon, and pierced the peritoneum of the left side, as also some of the muscles, but not the skin, and was immediately cut out, exactly in the same place on the left; so it must have passed perfectly in an horizontal direction."

Hunter felt more confident when treating wounds of the chest than he did when caring for abdominal wounds. His reasons, although elementary when viewed in the light of later knowledge, nevertheless were relatively sound for the day. This British surgeon believed that lung wounds were not necessarily fatal, for he said that there was much less bleeding from a bullet wound in the lungs than from a wound made with a sharp-pointed instrument, such as a sword or bayonet. Another reason advanced which favored gun-shot wounds was that "they seldom heal up externally by the first intention, on account of the slough, especially at the wound made by the entrance of the ball, so that the external wound remains open for a considerable time, by which means any extravasated matter may escape."

Treatment for this type of wound consisted of the operation for empyema when necessary and prescribing a spermaceti mixture with a little opium. In general, however, Hunter followed his fundamental principles of not searching for and removing the ball unless it lay within easy reach. He much preferred to keep his patient quiet and permit Nature to take its course. This may not have been the best procedure, but it was vastly superior to the techniques employed by other surgeons who insisted upon dilation and search with probe and forceps. This was almost always fatal.

Gun-shot wounds complicated by fractures or by extraneous bodies were a constant source of anxiety. In general, such wounds seemed to heal rapidly at first, then became slow and perhaps fistulous. They continued thus until the major foreign bodies had been removed in so far as possible and the mouth of the wound kept open "as large openings produce quick inflammation, quick suppuration, and quick granulations, which are generally sound when they arise from such a cause; on the other hand, letting such wounds heal at their mouths, has often a salutary effect, as it becomes a means of destroying this diseased part by the formation of an abscess there."

Of course, the surgeon always was obliged to face amputation of incurable parts. But Hunter, quite contrary to general practice, advocated delay unless it was clearly apparent that instant surgery was demanded. He was emphatic in denouncing the prevalent tendency to amputate on

the battlefield for, he said, the surgeon was not "master of the case" and the patient was not properly housed. He made exceptions, of course, but his general feeling was that battlefield surgery was not advisable.

Hunter advocated bleeding when there was an expectation of inflammation and symptomatic fever, but said that he would not bleed merely because he was treating a gun-shot wound. When he bled he used either leeches or the lancet. He applied bark (although he did not specify what kind) to wounds because he felt it to be "a strengthener, or regulator, of the system, and an antispasmodic."

There seems to be no doubt that, elementary as Hunter's text was, it marked a milestone in the treatment of gun-shot wounds and that the frontier physician schooled in its lessons benefited. In the first place, he learned not to meddle overmuch with the probe and forceps; in the second place, he was led away from the prevalent practice of dilation; in the third place, he was cautioned against haste in amputation; and in the fourth place, he was warned against excessive phlebotomy. Thus, it will be seen that much of Hunter's advice was negative, but nevertheless such information was of positive value not only to the Ohio physician tutored in the Hunter tradition, but also to the unfortunate frontiersman who came under his treatment.

A Brief Historical Sketch on Medical Education

It has been estimated that there were fewer than 3500 physicians in this whole country when the Colonies declared their independence. Of these, not more than 350 had received a medical degree of any kind. The medical faculty of the University of Pennsylvania had been organized in 1765, and that college which is now the Medical School of Columbia University in New York City, in 1767. Up to 1776, these two schools had granted 51 medical degrees. After the Revolution, in 1782, Harvard University had started its Medical School and Dartmouth followed in 1797. All of these medical colleges had graduated 221 men by 1800.

In these early times, the apprentice system was still operative in almost every trade and profession. So then the young man who had "a call for Physick," as the desire to study medicine was called, was apprenticed to some practicing physician for a term of three to five years. As a matter of fact, these young men were really boys from fourteen to eighteen years of age.—Jonathan Forman, M.D., Page 501, Ohio State University Centennial Celebration, 1934.

Children's Bureau Maternity and Infant Care Proposal Now In Effect In Ohio; Part Politics and Pressure Tactics Played Revealed In Council's Statement

AN emergency maternity and infant care program for the wives and children of enlisted men of the armed forces, based on the rules and regulations laid down by the United States Children's Bureau, is now in effect in Ohio.

A detailed description of the program and how it will operate will be found on pages 850-854.

It will be up to each physician to decide for himself whether he wishes to accept patients under the plan.

The program does not have the endorsement of the Ohio State Medical Association which is on record as opposing it on the basis of principle and for specific reasons which were set forth in a Statement of Policy adopted by The Council on July 11, 1943, and published in the August issue of *The Ohio State Medical Journal*, pages 762-764.

A strange, but highly illuminating, series of events and developments occurred after Dr. R. H. Markwith, state director of health, on July 19, informed the State Association that he would not put the Children's Bureau proposal into effect in Ohio, pending receipt from the Association of alternative plans for assisting the families of service men needing assistance in meeting their medical problems.

These developments were analyzed by The Council at a special meeting on August 8 when The Council drafted a second communication to Dr. Markwith, transmitting it to him on August 9.

The Council's communication of August 9, which is appended, should be read carefully by all members.

It reveals how the intentions and efforts of the Association to work out with the Army Emergency Relief, the Red Cross and similar voluntary relief agencies a coordinated program which would have produced more satisfactory results than the Children's Bureau proposal and which would have made unnecessary the establishment of a program blue-printed by the Federal Government, were nullified.

POLITICS AND PRESSURE

When the Scripps-Howard Newspapers decided to make this question a political issue, and an excuse to point the finger of criticism at the present state administration, obviously the Army Emergency Relief and Red Cross became jittery, as they cannot afford to be drawn into a political wrangle. When the pressure was put on at

Washington to get them to take a hands-off policy, they politely had to state that they could carry on no activity which would in any way supplant the Children's Bureau proposal. When certain newspapers saw to it that little, if any, of the Association's side of the question reached the reading public, the attitude of the Association was not understood and false impressions were acquired by some citizens.

Dr. Markwith did what any reasonable public official would have done. He delayed in order to give the Association an opportunity to present its ideas and to work out plans which it had hoped to work out. For this he was unjustly criticized.

ASSOCIATION WAS STYMIED

After the Association's plans had been stymied through the combination of political crusading and bureaucratic steam-rolling, it frankly had to admit to Dr. Markwith that it had no alternative program to offer to meet immediate needs of service men's families.

It will be noted that the Association in its statement of August 9 did not retract its belief that the Children's Bureau proposal "is based on unsound social philosophy which develops regimentation and tends to produce a poor quality of service". Moreover, the Association stated that it will see that its recommendation for stated cash allotments to service men's families, if government aid is the only aid available, is offered to the Congress for consideration. This will involve legislation so will have no immediate effect on the situation.

VALUABLE LESSON RE-LEARNED

The Association will do nothing to obstruct the operation of the plan in Ohio. It has offered

its cooperation to Dr. Markwith on administrative details. However, as stated, each physician has the right to decide for himself whether he will wish to participate in the program.

The Association re-learned a valuable lesson: The time to exert efforts to stop the spread of governmental medicine is while proposed legislation is pending and before the measure authorizing any proposal such as that of the Children's Bureau is enacted into law.

Following is the complete text of The Council's communication of August 9 to Dr. Markwith, which brought an end to the controversy:

TEXT OF SECOND COUNCIL STATEMENT

Dr. R. H. Markwith
Director of Health
State of Ohio
Columbus, Ohio

August 8, 1943

Dear Dr. Markwith:

This is to advise you that, after careful consideration of recent developments, the Council of the Ohio State Medical Association, which urged you on July 11, 1943, not to put into effect in Ohio the proposal of the United States Children's Bureau to provide emergency maternity and infant care for the wives and children of enlisted men, has no additional recommendation as to what course the State of Ohio should pursue on this matter.

We believed then we could have arranged a program which would have produced much more satisfactory results than the proposal of the Children's Bureau. However, we have been prevented from following through with our sincere intentions because certain interests have seen fit to make this a political issue and because pressure has been exerted to keep certain voluntary agencies from negotiating with us on this matter.

If, in your opinion, the present and future needs of families of service men can not be met adequately through personal arrangements and agreements between such families and physicians, or through the present limited aid plans conducted by interested organizations, you may desire to give further consideration to the Children's Bureau proposal, or to some other proposal, as a temporary measure to meet a war emergency.

Any action which you may take will be appraised by this association in the light of the regrettable circumstances which have arisen. We will place no obstacle in your path as administrator. It will be up to the families of service men and physicians to decide for themselves whether they will wish to participate in any plan which is put into effect.

"Concessions" purported to have been made by

the Children's Bureau have not influenced us in arriving at the conclusions set forth in this communication. As stated, we disagree with the principle on which the bureau's proposal is based. No so-called "concessions" with respect to fees, which physicians may or may not participate, hospital rates, etc., can alter the basic principle which is wrong, in our opinion.

If you desire the assistance of this association on matters of administrative detail, we will cooperate with you. We hope that the families of service men will not be disappointed in the Children's Bureau proposal, if that is to be the pattern. It is our belief that there will be disappointments, because of the inadequacy and inelasticity of the plan. We still feel that the program is based on an unsound social philosophy which develops regimentation and tends to produce a poor quality of service.

We are convinced that the proper way to provide necessary financial aid to the families of service men for medical care is through stated cash grants, specifically for medical care and paid directly to such families by the government or voluntary agency assuming the responsibilities. That is the method which is being used to assist such families in obtaining other necessities. It is our intention to offer this recommendation for consideration by the Congress.

Irrespective of future developments, we wish to reassure you and the people of Ohio that the medical profession will continue to meet its responsibilities—plan or no plan.

When we sent you a communication setting forth certain objections to the Children's Bureau plan, we informed you that we felt satisfactory methods of aiding the families of service men, where need exists, could be worked out and that we were working on such plans. You decided to give the association an opportunity to develop its ideas, which was a reasonable attitude on your part.

Recently, however, carelessly worded statements have been made and published, inferring that the physicians of Ohio have refused to care for the families of enlisted men. It has been intimated that this association is not interested in the welfare of the dependents of service men and is opposed to methods of assisting them to meet their medical problems.

There is no truth in such inferences. They are misrepresentations of the attitude of the medical profession of Ohio and this association.

Our action of July 11 stated in no uncertain terms that it is the sincere desire of the medical profession of Ohio to see that the families of men in the armed forces receive the best services which

the physicians of Ohio are capable of rendering, regardless of their ability to pay for such services. We admitted the need for a method of providing financial assistance to some of the families of service men—perhaps all of them. We stated we were working on plans for meeting such needs.

The only point of difference was what would be the most satisfactory method of meeting the need. We are confident that in the meantime not a single family of a service man in Ohio, which has sought the services of a physician, has been refused medical attention.

It has been intimated that the medical profession has been unpatriotic because it has disagreed with the Children's Bureau. The patriotism of the physicians of Ohio does not need to be defended. It is well known and is evidenced by contributions which physicians have made and are making to the war effort.

We concede the right of anyone to disagree with the position the Council of the Ohio State Medical Association took on this question. We believe in the right of free speech and in a free press. By the same token, we believe the medical profession has a right to speak frankly on matters involving the health and medical needs of the people and to criticize proposals, if, in its opinion they are unsound in principle and in practice.

You, as director of health, have been criticized by a few for even considering the recommendations of this association. There are a few who feel that the Children's Bureau proposal is perfect and that it should have been accepted by Ohio without question by anyone. We disagree with that view.

You and the Governor of Ohio have been criticized by certain newspapers—primarily the Scripps-Howard newspapers of Ohio. It is quite apparent that those newspapers accomplished their real purpose which was to make this question a political issue. Certain politicians have been quick to join the crusade.

It was the intention of this association, through conferences and in cooperation with the officials of certain voluntary agencies, to develop, if possible, programs which would provide financial assistance for the wives and children of service men and, at the same time, would provide them with the best of medical care.

Preliminary conferences which had been held strengthened our belief that satisfactory working agreements could be reached with such organizations as the Red Cross, Army Emergency Relief, Navy Relief, Air Force Relief, and similar agencies. Such agencies have been carrying on limited activities in providing financial assistance to service men's families for the purpose of

medical care. They have sufficient funds for the expansion of these activities. We believed that their work in this field could have been coordinated and organized, in cooperation with the medical profession, to enable them to meet all needs, making the establishment of a Federally-financed governmental program unnecessary.

It was our belief—still is—that flexible programs under the supervision of voluntary agencies would have made the best of medical care available to service men's families. We felt—still do—that they would have eliminated any need for a program blueprinted by a Federal bureau under inelastic regulations which would tend to reduce the quality of the services received by participants.

Moreover, you will recall that we stated we would favor a Federal cash allotment to the families of service men for medical, nursing and hospital services if the methods we suggested proved to be inadequate after being put to a fair trial.

The unfortunate circumstances which have arisen have nullified our efforts and good intentions. It is obvious that those who insist that the Children's Bureau proposal is the only solution are unwilling to give us an opportunity to work out our own ideas or to give plans which might have been developed a fair trial. It is obvious that those who made this a political issue are determined to obstruct our activities.

New developments have virtually made it impossible for the organizations which we have named to confer with us now on the question of maternity and infant care for enlisted men's families. They can not become involved in a political fight. Pressure from Washington has been exerted on them, making it necessary for them to take a hands-off attitude. No doubt they will continue with activities involving limited temporary aid to service men's families but they will be unable to expand their programs along the lines we had planned to present to them.

This association has no desire to become involved in a political wrangle. It has no desire to prolong the controversy. It has a big job to do on important functions which it is performing for the War and Navy departments, Procurement and Assignment Service, Selective Service, Office of Civilian Defense and other war agencies. Physicians as individuals do not have the time for public debates on this question as they have important duties to carry out in connection with their determination to see that all medical needs on the home front are met.

The Council
Ohio State Medical Association
Per: C. C. Sherburne, M. D., President

Detailed Description of Ohio Program of Maternity and Infant Care for Wives and Children of Enlisted Men in Armed Forces

OHIO's program providing emergency maternity and infant care for the wives and infants of enlisted men in the armed forces, formulated under rules and regulations laid down by the United States Children's Bureau and financed with Federal funds, became effective on August 12, 1943.

Administration of the program will be carried on by the State Department of Health through its Division of Child Hygiene and other divisions concerned in the plan, such as the Division of Nursing and the Division of Audits and Reports.

The program is not retroactive. Funds cannot be provided for services, nor for reimbursement of financial obligations which have been incurred prior to August 12. A bulletin issued by the department advises wives of enlisted men "who are in immediate need of financial assistance" to get in touch with the Army Emergency Relief Officer, Fifth Service Command, 625 Huntington Bank Building, Columbus.

Following are some of the pertinent sections of the program, complete details of which are appended:

Those Eligible to Participate—Wives and infants (under one year of age) of enlisted men, including the first seven grades of the Army, Navy, Marine Corps or Coast Guard, regardless of legal residence or financial status are eligible to participate. Wives of men in the first three pay grades will be required to provide the following statements on form MCH-7: "My present financial and personal circumstances have made it necessary for me to request care for myself or child as provided by the emergency maternity and infant care program".

Choice of Physician—An eligible applicant may seek the services of a physician of her choice. Each physician has the right to decide for himself as to whether he desires to render services to an applicant under the program.

How Application is Made—An official application form MCH-1 is provided for maternity care, and form MCH-2 is provided for infant care. These forms may be secured at the office of any local health department in Ohio. The mother completes the form MCH-1 or MCH-2 depending upon whether she is requesting maternity or infant care. She then takes this form to the physician of her choice and presents evidence to the physician that she is the wife of an enlisted man, either by her allowance card, or by an en-

velope she has received through the mail from her husband giving his serial number. If the physician decides to render services under the plan, he should complete the form MCH-1 or MCH-2 and send it immediately to the Chief, Division of Child Hygiene, Ohio Department of Health, Columbus 15, Ohio, for authorization for providing care. If the form has been satisfactorily completed, and the wife is entitled to the benefits of the program, a notice of official authorization will be mailed to the physician, the hospital, the mother, and the local health department.

Fees for Maternity Care—A physician providing complete maternity care, including obstetrical operations, will receive a fee of \$40.00, of which \$10 is for antepartum care, \$25.00 is for delivery, and \$5.00 for postpartum care, including an examination approximately six weeks after delivery.

Hospitalization Provisions—Hospitalization is provided upon the request of the attending physician on form MCH-1 or MCH-2. Only licensed maternity hospitals in Ohio may participate in this program. Hospitals are paid at ward rates on the basis of the following formula: The certified per diem operating cost of the hospital less 15%, plus 25%, with a ceiling rate of \$6.50 for mother and infant, the certified per diem rate less 15% for the infant with a ceiling of \$5.50 per day. A maximum of fourteen days of hospitalization is provided for maternity and infant care.

Hospital care under this program cannot be provided when the patient or her family desires to pay the physician his fee. The physician in signing the request for authorization for maternity or infant care agrees not to accept additional payment from the patient or her family for services authorized. If a physician does not desire to participate under this program, and provides a statement that he is not making a charge to the patient for his services, hospitalization may be authorized under this program.

Provisions for Pediatric Care—The infant care program is only for sick infants under one year of age. The physician is granted an initial authorization to render services to the sick infant for a period not to exceed three weeks for a maximum sum of \$22.00, of which a maximum sum of \$10.00 may be expended the first week, and \$6.00 for the second week and \$6.00 for the

third week, on a fee basis of \$3.00 for home calls and \$2.00 for office and hospital calls. Authorization for additional care after the initial three weeks' period may be requested by the attending physician and may be granted after review and approval by the Chief of the Division of Child Hygiene, State Department of Health.

Nursing Services—When the patient is seriously ill, the attending physician may request private duty nurses who will be authorized for a period of not to exceed 14 days at prevailing rates, not to exceed \$7.00 per day including meals. Home bedside nursing service may be provided when requested by the attending physician through authorization to local visiting nurse associations at the prevailing local rate of not to exceed \$1.50 for the first hour and \$.75 for each additional hour, for a maximum of eight visits in a fourteen day period, which will not exceed a cost of \$15.00. A registered nurse may be provided for bedside nursing care when this service is not available either in the local health department or the visiting nurse association. The fee shall be the prevailing local rate not to exceed \$2.00 for the first hour and \$.75 for each additional hour. If home delivery nursing service is not available, the service of a registered nurse may be authorized and will be paid at a rate not to exceed \$7.50 per case.

Consultation Service—Qualified specialists, when called by the attending physician, may be paid a fee not to exceed \$10.00 for advice and assistance rendered the attending physician. When a qualified specialist is called by the attending physician to perform major surgery, he may be paid a fee not to exceed \$40.00. In order to provide official authorization for the specialist called by the attending physician, it is necessary for the attending physician to present a request of the Ohio Department of Health for this consultation service either on form MCH-1 (Maternity) or form MCH-2 (Infant Care) within 48 hours after the consultation, if the attending physician has not previously requested authorization for consultation.

DETAILED DESCRIPTION OF PROGRAM

Following is detailed information on procedures, standards, administrative regulations, etc., on the Ohio program:

PROCEDURES

(1) Eligibility for Care Under the Plan.

Any woman, irrespective of legal residence, whose husband at time of application is an enlisted man (this includes men deceased or missing in action) in the armed forces of the United States (Army, Navy, Marine Corps, or Coast Guard) and who makes application in Ohio for emergency maternity and infant care will be eligible for the medical, nursing, and hospital

services provided under this plan, without cost to the family, when similar services are not otherwise available from the medical or hospital facilities of the Army or Navy or from facilities provided by or through official State and local health agencies. Children under one year of age of these men are eligible for medical, hospital, and nursing care when ill and will be referred to child health conferences for health supervision. By "similar services otherwise available" is meant medical, nursing, and hospital care made available without cost to the family and without financial investigation to wives and infants of service men of specified grades by the Army or Navy or by a State or local health department or under an arrangement made through a local health department. Even though the grade of an enlisted man should change after the date of application the wife or child (under one year of age) will continue to be eligible for the maternity or infant care already authorized by the Ohio Department of Health.

(2) Method of Application for Care.

Official forms for requesting these services will be available from the Ohio Department of Health, and through local health departments, physicians, Red Cross Chapters and other welfare agencies. The application form is to be completed and signed by the wife or mother (or other person responsible for the child) and the request for authorization form completed by the attending physician, and forwarded immediately to the Chief of the Division of Child Hygiene, Ohio Department of Health. In the request for authorization, the physician agrees that he will provide the services authorized at the rates established by the Ohio Department of Health, and will not receive payment from the patient or her family for such services. The same application form will be used for all cases. When application forms are received from wives of men in the first, second and third pay grades, Form MCH-7, will be sent to the applicant for additional information before considering for approval.

(3) Methods and Policies of Authorization for Payment of Services.

Obstetrical Services—The Chief of the Division of Child Hygiene of the Ohio Department of Health, or his authorized deputy, will promptly notify the patient, the attending physician, and the hospital (if hospital care is requested by the attending physician), and the local health department, whether or not the care requested has been authorized. In order that authorization may be made effective from the date the application is signed by the applicant, it must be received by the Ohio Department of Health within fifteen (15) days after it has been signed by the attending physician. Therefore, it is urgent that the request for authorization for care be mailed to the Chief of the Division of Child Hygiene, Ohio Department of Health, immediately after the patient applies for care. Application for authorization for care in case of emergency shall be submitted to the Chief of the Division of Child Hygiene, Ohio Department of Health, within forty-eight (48) hours. The authorization for medical maternity care includes all medical care rendered by the physician during the prenatal period, throughout labor, and during the six weeks postpartum period, including a routine blood test for syphilis, hemoglobin determination, urinalyses, etc.

Pediatric Services—In order that authorization for the care of sick infants may be expedited, the request for authorization for care should be immediately sent to the Chief of the Division of Child Hygiene, Ohio Department of Health. Retroactive authorization for care of sick infants will not be made to cover more than one week of illness during the time authorization is pending. The initial authorization for medical care of sick infants will be limited to medical services for a period not to exceed three (3) weeks. Request for authorization for additional care may be requested and will be granted after review and approval by the Chief of the Division of Child Hygiene, Ohio Department of Health.

Consultation Services—For complications and emergencies, the attending physician may request advice or assistance from recognized specialists in the various fields of medical practice. The attending physician shall notify the Ohio Department of Health, using Form MCH-1 for maternity care or Form MCH-2 for infant care, within forty-eight (48) hours, when it has been necessary to use the service of a consultant in case of a complication or an emergency, specifying the reason for consultation, the name and address of the consultant called, and the service rendered. When the authorization is approved by the Chief of the Division of Child Hygiene, Ohio Department of Health, the consultant will be reimbursed by the Ohio Department of Health in accordance with the rates established in this plan.

Hospital Services—The attending physician may request authorization for hospital care on Form MCH-1. Initial authorization for hospital maternity care will be made for a maximum of fourteen (14) days, although it is recognized that not all maternity cases will need to remain in the hospital for this period of time. A minimum stay of ten (10) days after delivery is recommended for all uncomplicated cases. Initial authorization for pediatric hospital care will be made for a maximum of fourteen (14) days. Renewal of authorization for maternity or pediatric hospital care may be requested by the attending physician, and may be authorized after review of the case by the Chief of the Division of Child Hygiene, Ohio Department of Health.

In case of emergency the attending physician may hospitalize the patient, and if approved, the hospital will be paid by the Ohio Department of Health, provided the attending physician submits the official request for this hospitalization within forty-eight (48) hours to the Chief of the Division of Child Hygiene, Ohio Department of Health.

Authorization for hospital care will be made by the Ohio Department of Health provided the hospital agrees not to receive payment for services rendered during the period authorized from the patient or from her family.

Request for authorization for hospital care only will not be approved unless medical care is also authorized by the Ohio Department of Health, or unless the Ohio Department of Health has been advised that medical care rendered, after the date of authorization for hospital care was requested, will be provided without cost to the patient or her family.

(4) Clinic Services.

For wives or infants seeking care in university or other clinics, the request for authorization for such services may be made by the clinic and

reimbursement made by the Ohio Department of Health if necessary for out-patient or in-patient care.

(5) Dental Services.

No plan for this service.

(6) Referral for Nursing Services.

All patients applying for care under this plan may be referred to the local health department for antepartum and postpartum nursing care. Home delivery nursing care will be provided when available in the community. Infants will be referred for public health nursing services.

Local health departments should make available their facilities for providing nursing service for antepartum and postpartum care of these maternity patients and also for the nursing care of infants. In areas where this nursing service is not available from local health departments, cases will be referred to visiting nurse associations providing such services.

When home bedside nursing service is needed for patients included in the program and is not available in the public health nursing service of the local health department, it may be authorized through the local visiting nurse association on a fee basis, the fee not to exceed \$1.50 for the first hour and seventy-five cents (.75) for each additional hour.

A registered nurse may be provided for bedside nursing care when this service is not available either in the local health department or the visiting nurse association. The fee shall be the prevailing local rate not to exceed \$2.00 for the first hour and seventy-five cents (.75) for each additional hour.

If home delivery nursing service is not available, the service of a registered nurse may be authorized and will be paid at a rate not to exceed \$7.50 per case.

Special bedside nursing care in the homes and in hospitals when authorized upon the request of the attending physician for maternity patients or infants will be paid at the prevailing local rate not to exceed \$7.00 per eight hour day including meals. The use of this service will be provided only for the critical period of the patient's illness.

Authorization for nursing care not provided by the public health agencies may be requested by the attending physician on Form MCH-1 or Form MCH-2, and payment will be made by the Ohio Department of Health provided the nurse receives no additional payment for such services from the patient or her family.

(7) Referral for Social Services.

Plans for social service follow-up of patients will include the employment of a medical social worker by the Ohio Department of Health. The function of this worker will be to act as a consultant to local health or other agencies in the handling of social service problems and in the correlation of services which various welfare and social agencies may be able to provide.

Arrangements will be made to have a local health department nurse visit patients authorized to receive medical, nursing or hospital care in order to ascertain the need for social services. Cases shown to be in need of social services will be referred to the appropriate local welfare agency for follow-up. It is recommended that the agency taking over the social service needs

of the case report back to the local health department the final disposition of the case.

(8) Transfer of the Records of Patients Moving From One Locality to Another.

When a patient removes from one community to another, the attending physician should provide the patient with essential medical data to present to the next physician providing medical care.

(9) Payment for Medical Care.

(a) **Maternity Care**—The inclusive rate to be paid a physician is for all medical services he renders the patient during the antepartum period (including at least five (5) antepartum examinations) labor and puerperium, as well as care of complications, obstetrical operations, if needed, postpartum care, care of the newborn infant, postpartum examination six (6) weeks after delivery, routine blood test for syphilis, hemoglobin determination, urinalyses, etc., will be \$40.00. Whenever the attending physician does not provide antepartum care, he will be paid \$30.00 for delivery and postpartum care. It is recommended that every maternity patient have adequate antepartum care in accordance with recommended standards. Whenever less than five (5) antepartum examinations are made, the physician will be paid the delivery and postpartum fee and \$2.00 for each antepartum examination. When the physician only provides complete postpartum examination, he may be paid a fee of \$5.00 for such examination. When the physician does not provide a postpartum examination approximately six (6) weeks after delivery, \$5.00 will be deducted from the inclusive rate of \$40.00.

(b) **Health Supervision and Medical Care for Infants**—Initial authorization for medical care for sick infants shall cover a period not to exceed three (3) weeks and shall provide for payment as follows: Home visit \$3.00; hospital or office visit \$2.00. The total amount paid shall not exceed \$10.00 for the first week of care and \$6.00 for each succeeding week of care. Authorization for additional care may be requested by the attending physician on Form MCH-2, and may be granted after review and approval by the Chief of the Division of Child Hygiene, Ohio Department of Health.

(c) **Consultation Service**—Qualified specialists, when called by the attending physician, may be paid not more than \$10.00 for advice or assistance rendered the attending physician. When a qualified specialist is called by the attending physician, and is called upon to perform major surgery, he may be paid at the rate of not to exceed \$40.00.

(d) **Authorization for Payment of Medical Care**—Authorization for this service will be made by the Ohio Department of Health provided the physician or consultant receives no additional payment from the patient or her family.

(10) Payment for Hospital Care.

Payment for hospital care of maternity patients will be provided at ward rates on the basis of 85% of the certified operating per diem cost plus 25%, with a maximum of \$6.50 per day for such care. This rate will be paid for the day of admission and for each day the mother is in the hospital, not including the date of discharge.

Payment for hospital care for infants remaining in the hospital after the discharge of the

mother, or for premature or sick infants admitted to the hospital for care, will be made on the basis of 85% of the per capita per diem rate fixed for a mother and newborn infant, with a maximum of \$5.50 per day for such care. In hospitals having no rate for maternity and newborn infants, payment will be based on 85% of the certified operating per diem rate without adjustment. If a newborn infant stays in the hospital after the discharge of the mother, the hospital care rate for the infant will begin the day the mother leaves the hospital (infant becomes a pediatric case) and will continue until the day of discharge, no hospital care cost being paid for the day of discharge. The rate to be paid for infants will not be made beyond the date when, in the opinion of the attending physician, the infant is in a state of health suitable for discharge from the hospital. A mother or infant should not be discharged from a hospital until satisfactory arrangements have been made for the care of the mother and infant outside of the hospital.

The per diem rate paid to hospitals for maternity and pediatric care shall include all services rendered to the patient while in the hospital by individuals employed on a salary, fee or commission basis by the hospital; except for purchased blood or plasma, or for the services of special nurses.

Payment will be made to the hospital upon receipt of invoices accompanied by information showing the date of admission and discharge of each patient for whom care was authorized by the Chief of the Division of Child Hygiene, Ohio Department of Health, and a statement that the hospital has not charged or received any payment for any of the services rendered.

(11) Ambulance Service.

Ambulance service will be paid at the prevailing local rate, not to exceed \$10.00. Ambulance service costing over \$10.00 will be paid only when authorization for such ambulance service is secured prior to use of service.

STANDARDS

(1) Medical Services.

Medical care provided under this plan will be authorized only when the attending physician, or consultant, is a person holding a certificate issued by the State Medical Board of Ohio which licenses him to practice medicine and surgery in the State of Ohio within the limitations authorized by his certificate.

The following standards of maternal care are recommended for obstetric patients cared for under this plan:

(a) Supervision to be begun as early in pregnancy as possible, and to be continued for at least six weeks after delivery.

(b) History to include all significant past diseases, operations or other illnesses as well as the menstrual history and previous pregnancies.

(c) History of the present pregnancy.

(d) Complete physical examination, including vaginal examination and measurements of pelvis; additional examinations including hemoglobin determinations, blood count, urinalyses and blood test for syphilis. The patient should be weighed, and should have her urine examined and blood pressure taken at each visit to the physician.

(e) Instruction in the hygiene of pregnancy should be given the patient.

(f) The patient should be examined by the physician at least once a month during the first six months, then every two weeks or oftener as indicated, preferably every week in the last four weeks.

(g) Patients who, in the opinion of the physician, need additional home supervision should be referred to the local health department.

Consultants shall be physicians who are diplomates of the board of their specialty or are recognized, as being specialists in the field of medicine or surgery in which they have specialized.

(2) Nursing Services.

Qualifications of public health nurses will be those which have been established by the Ohio Department of Health under its Classification and Compensation Plan and those of the local Visiting Nurse Associations.

Nursing Consultant Service of the Ohio Department of Health will be given to all health departments and visiting nurse associations participating in this service.

Nurses employed for this service on a fee basis in the home or in the hospital will be those meeting the following qualifications: Graduate from an accredited school of nursing; registered in Ohio; satisfactory experience in maternity and pediatric nursing as required by Ohio State Nurses' Registration law.

Supervision of nurses employed on a case basis will be given by the local department of health nursing staff under the guidance of the consultant nursing staff of the Ohio Department of Health.

The standards for antepartum, delivery and postpartum nursing service will be those recommended in the Nursing Manual of the Ohio Department of Health.

(3) Hospital Services.

Obstetric Services—Requirements and recommendations for hospitals approved for the care of obstetrical cases under this plan: (a) A maternity hospital shall meet the legal requirements for such institutions and shall be licensed as a maternity hospital by the Ohio Department of Health. (b) Additional requirements for a hospital approved for care must include adequate laboratory facilities. If facilities for chemical, bacteriological, serological and pathological examinations are not available in the hospital, provisions for these procedures shall be arranged for in a convenient laboratory.

Pediatric Service—Requirements and recommendations for a hospital approved for the care of pediatric cases (under one year of age only): (a) An Ohio registered nurse must be employed in a supervisory capacity in the institution. (b) The building equipment and surroundings shall be kept in a cleanly and orderly condition at all times and the management and operation of the pediatric service shall be such as to insure the health, comfort and safety of the patients. (c) The buildings, equipment, and precautions taken to provide for the safety of patients in cases of fire must meet the approval of the Division of Factory and Building Inspection of the Ohio Department of Industrial Relations. Adequate facilities must be available for the isolation of children with evidence of infection; individual isolation technique must be observed for all such cases. If isolation facilities are

not available, the patient must be isolated in a private room until such time as he can be transferred to a suitable hospital. It is recommended that pediatric cases be segregated from other patients. The equipment and supplies shall be adequate for the performance of major surgical operations. Adequate laboratory facilities must be available. If facilities for chemical, bacteriological, serological and pathological examinations are not available in the hospital, provision for these procedures shall be arranged for in a convenient laboratory; adequate facilities for giving blood transfusions and hypodermoclyses; facilities for supplying oxygen and apparatus for its continuous administration; X-ray equipment; accurate and complete medical records including history, physical examinations, laboratory data and records of treatments. (d) It is recommended that if possible premature infants be hospitalized in institutions having these additional facilities; a premature nursery or other facilities to provide segregation in a suitable environment for premature infants. A registered nurse, preferably one with special training in the care of premature infants, should be in attendance at all times. No member of the nursing staff that cares for premature infants shall attend other patients who have any condition which may be communicable; a suitable incubator or heated crib should be provided for each premature infant; nursery equipped with means for maintaining a constant temperature of 75° to 80° F. and with some means of humidifying the room to 50 to 55%. The hospital accepting a premature infant born outside the hospital should provide a suitable nursery and isolation facilities on the pediatric service for his care.

Follow-up of Hospital Patient—It is recommended that hospitals approved for maternity and pediatric care arrange with the local health department to have the public health nurse provide follow-up visits to the mother or infant after discharge from the hospital.

Inspection of Hospitals—Maternity hospitals which meet the legal requirements for such institutions and are licensed by the Ohio Department of Health will be approved for hospital care of maternity patients. Pediatric services in a hospital approved by the American College of Surgeons will be approved for hospital care of pediatric cases, provided the institution meets the legal requirements for hospitals as set forth in the Ohio General Code. Plans will be made by the Division of Child Hygiene and the Division of Nursing in cooperation with local health departments for the inspection of other hospitals for pediatric care. An outline has been prepared for securing information from hospitals relative to facilities for pediatric services in order to simplify the work of inspecting hospitals having pediatric services and wishing to participate in the program.

General Electric Wins Award

Announcement of a second award for excellence of war production to the General Electric X-Ray Corporation, Chicago, has been received by the company in a letter from Robert P. Patterson, Under Secretary of War. The award adds a white star to the Army-Navy "E" flag which has flown over the company's plant since the coveted industrial prize was first presented as of January 26 of this year.

Need for More Medical Officers Is Real; Recruiting In Ohio Stepped Up; New Procedures Are Analyzed

APPROXIMATELY 6,000 additional medical officers are needed by the armed forces to bring the medical personnel of the services up to requirements which will exist by the end of 1943, according to a recent announcement of the Directing Board, Procurement and Assignment Service for Physicians, Washington, D. C.

The large proportion of the 6,000 physicians needed will have to be recruited from civilian practice, as most of the interns and residents who are available have already been commissioned and there will not be a new group of interns and residents ready for active duty before next year.

Ohio has been requested to do its part toward meeting this real demand for medical officers by inviting every physician under 45 years of age who can be spared from his present duties to apply for a commission.

NAMES OF AVAILABLES CERTIFIED

The Ohio Procurement and Assignment Committee, after a careful survey of all areas in the state, has certified to the officers' procurement services of the Army and Navy the names of several hundred physicians who have been classified as available. These physicians are now being interviewed by representatives of the procurement divisions of the Army and Navy.

There is a possibility that a survey of the status of physicians who have been previously physically disqualified for military service will be made in the near future to determine whether some of them can be placed on the list of availables. Physical standards of both the Army and Navy have been relaxed to some extent during recent months, meaning that some who were disqualified before, may now be able to meet the physical requirements of the services.

CAREFUL SURVEYS MADE

Before certifying men as available, the Ohio Procurement and Assignment Committee has followed the policy which it has pursued in the past. It makes a careful check of medical personnel and of civilian and industrial needs in all areas before classifying a physician as available, as it is still keenly aware of the necessity of keeping a reasonable number of physicians on the home-front.

Representatives of the procurement divisions of the Army and Navy are visiting all Ohio hospitals having interns and residents for the purpose of urging interns and residents who do not hold a commission, to apply for one immediately.

Interns now holding a commission, or those who file applications now and are appointed, will not be called to active duty until they have completed their present internship. Interns holding commissions who complete their current internship on some date between July 1, 1943, and January 1, 1944, may be given consideration for deferment for periods of three to six months after completing internships, provided their services are absolutely essential to the hospital until replacements are obtained from the December, 1943, graduating classes.

Residents who do not hold a commission now but who file an application at this time and are appointed, will not be called to active duty until completing their present term of residency, providing they are classified by the Procurement and Assignment Service as essential to the operation of hospitals.

Deferments in cases of residents declared essential will be granted under recent agreements reached by the surgeons general of the Army and Navy and the Directing Board of the Procurement and Assignment Service.

PROCEDURE FOR DEFERMENTS

Hospitals desiring the deferment of residents, or of interns after the intern has completed his regular internship, should submit their requests for deferment to Dr. Robert Conard, 1005 Hartman Theater Building, Columbus, chairman of the Ohio Procurement and Assignment Committee. Blanks for this purpose may be obtained at the Columbus office. Blanks should be filed in triplicate on each man for whom deferment is being requested. They should be filed as soon as possible after the resident files his application for a commission—on the same day if possible. In the case of an intern, blanks should be filed as soon as the hospital is prepared to submit adequate evidence that it will need the intern for several months after he completes his regular internship. All questions on the blanks should be answered in full.

Upon receipt of the blanks, Dr. Conard and his committee will review the request for deferment to determine that the resident (or intern) is essential to the hospital for the remainder of the current residency (in the case of an intern until a replacement can be obtained). If the resident (or intern) is deemed essential the request for deferment will be endorsed by Dr. Conard and transmitted to Washington.

If a resident is deemed by the Procurement and Assignment Service as not essential to the

hospital, he will be expected to accept a commission and report for active duty when he receives orders to do so.

An intern or resident who does not hold a commission is subject to the Selective Service Law. In the case of residents, the Selective Service regulations have been relaxed considerably, making it more difficult for the hospital to prove the resident is essential. By obtaining a commission, the resident will no longer be subject to induction under the Selective Service Law and if deemed essential, may be deferred under the provisions outlined above.

NEW SELECTIVE SERVICE RULING

Because of the immediate need for medical officers, regulations of the Selective Service System have been revised to permit the induction of physicians between the ages of 38 and 45 providing they have been classified as available and are otherwise subject to induction under the Selective Service Law. Until recently, only registrants under 38 years of age were considered for induction. Of course, the provisions of the law and regulations relating to dependency which apply to all registrants under Selective Service will apply also to physicians. It has been reported, however, that relaxation of the dependency provisions as they apply to all registrants is contemplated in the near future in order to increase the size of the armed forces.

THE NEED IS REAL

The question which is heard repeatedly: "Is there a real need for medical officers now?" is answered in the following comment which appeared recently in *The Journal of the American Medical Association*:

"At a conference of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, held on July 31, with the War Participation Committee of the American Medical Association and in the presence of Mr. Paul V. McNutt, chairman of the War Manpower Commission, and representatives of the Army and Navy medical departments and the Public Health Service, it became apparent that the medical profession must produce toward the winning of the war an additional six thousand physicians for the armed forces before Jan. 1, 1944.

"The needs of the armed forces are real. The members of the War Participation Committee raised with the representatives of the various governmental agencies all the questions that have from time to time challenged the need; the challenge seems to have been met effectively. Indeed, the intimation was made clear that the needs of the armed forces will be met by specific regulations of the Selective Service Administration or

the enactment of necessary legislation if required. All physicians up to 45 years of age who have been indicated as available have therefore placed on them now the responsibility for an immediate decision as to their enlistment with the armed forces. The need is so positive that questions of essentiality of men in positions of teaching and research and in industrial medicine are likely to be rigidly reviewed in the near future with a view to extracting from civilian life every one that can be spared.

"As the war continues and intensifies new needs for the services of the medical profession become apparent. An army in motion and one engaged in the kind of aggressive combat that now concerns our armed forces needs physicians in even greater numbers than have heretofore been demanded. Many thousands of interned aliens and prisoners are now the burden of the United States and must be given medical care."

Legal Medicine Conference and Seminar Planned

The Massachusetts Medico-Legal Society in conjunction with the Department of Legal Medicine of Harvard Medical School has arranged for an all-day conference to be held at the Mallory Institute of Pathology, Boston City Hospital, on Wednesday, October 6, 1943. This will be open to any registered physician, lawyer, police official, criminal investigator, senior medical student or other person whose duties are associated with medico-legal topics.

It will include lectures, demonstrations, and informal discussion concerning many subjects in legal medicine. There is no fee, and advance application is not essential. Advance notice of intention to attend would be helpful, however, and should be addressed to Dr. William H. Watters, Department of Legal Medicine, Harvard Medical School, Boston.

The Harvard Medical School will offer a Seminar in Legal Medicine to occupy the entire week of October 4 to 9, inclusive. It is planned particularly for medical examiners and coroners. The course will be practical rather than theoretical. The enrollment has been limited to fifteen. For the Seminar the fee is \$25. Application should be made on or before October 1 to Harvard Medical School, Courses for Graduates, 25 Shattuck Street, Boston, Massachusetts.

The U.S. Office of Civilian Defense for the Fifth Region is now located at 9 Buttles Avenue, Columbus, having been moved from Cleveland. Its purpose, cooperating with the state defense councils, is to guide civilian defense activities in Ohio, Indiana, Kentucky and West Virginia. Dr. William S. Keller, formerly of Cincinnati, is the regional medical officer.

Names of 56 Ohio Physicians Added to Military Roster, Making Total of 2,598 Now in the Service

SINCE the last issue of *The Journal* went to press, the names of 56 Ohio physicians have been added to the roster of those in military service or in full-time Federal services for the duration, making a total of 2,598 as of August 23, 1943. The total is divided as follows: Army, 2,239; Navy, 305; other, 54. The names of four physicians were removed from the military roster as they have been discharged and have resumed private practice.

Following are the names of those added to the military roster during the past month, the breakdown by counties and the names of those receiving promotions. These data are unofficial and if there are errors, *The Journal* would appreciate being notified immediately.

ADDED TO MILITARY ROSTER

Name	City	Rank
Allison, H. W.	Akron	1st Lt., U.S.A.
Ash, Clarence Edw.	Cincinnati	1st Lt., U.S.A.
Berke, Meyer	Cleveland	1st Lt., U.S.A.
Bischoff, Paul A.	Akron	1st Lt., U.S.A.
Bobey, Milton Edw.	Cleveland	1st Lt., U.S.A.
Bookwalter, Henry Lee	Columbiana	1st Lt., U.S.A.
Borden, Craig W.	Cincinnati	1st Lt., U.S.A.
Brody, David A.	Cleveland	1st Lt., U.S.A.
Christman, H. E.	Cleveland	Lt. (j.g.) U.S.N.
Craver, William	Columbus	Lt. (j.g.) U.S.N.
Crosby, Frank Dale	Bellevue	1st Lt., U.S.A.
Dewald, Donald W.	Cleveland	1st Lt., U.S.A.
Dillahunt, Paul H.	Columbus	1st Lt., U.S.A.
Dodd, Theodore J.	Canton	1st Lt., U.S.A.
Faller, W. W.	Cleveland	1st Lt., U.S.A.
Flagge, Albert Edw.	Cincinnati	1st Lt., U.S.A.
Frell, Albert C.	Warren	1st Lt., U.S.A.
Goss, Frank A.	Cleveland	1st Lt., U.S.A.
Gross, Ludwik	Cincinnati	Capt., U.S.A.
Haines, Robert A.	Cincinnati	1st Lt., U.S.A.
Hanrahan, Frank, Jr.	Cleveland Heights	1st Lt., U.S.A.
Hart, George G.	Cleveland	Capt., U.S.A.
Herbert, Joseph M.	Youngstown	1st Lt., U.S.A.
Howland, Bernard U.	Wheelersburg	1st Lt., U.S.A.
Hunsche, Charles Wm.	Cincinnati	Capt., U.S.A.
Kallenberg, Joseph B.	Cincinnati	1st Lt., U.S.A.
Klein, Julius B.	Cleveland	1st Lt., U.S.A.
Mahaffey, Howard W.	Columbus	1st Lt., U.S.A.
Mallett, Dean Willard	Springfield	1st Lt., U.S.A.
Marshall, Joel Y.	Cleveland	1st Lt., U.S.A.
Martz, Raymond Wm.	Hamilton	1st Lt., U.S.A.
McCoy, Francis W.	Columbus	1st Lt., U.S.A.
McKee, Edward E.	Cincinnati	1st Lt., U.S.A.
Moore, Frank R.	Cincinnati	Lt. (j.g.) U.S.N.
Obert, Charles	Cleveland	1st Lt., U.S.A.
Oliver, Wm. S.	Middleport	1st Lt., U.S.A.
Oppenheim, Heinz	Warrensville	1st Lt., U.S.A.
Portman, A. Frank	Cleveland	Lt. (j.g.) U.S.N.
Proudfit, Wm. L.	Cleveland	1st Lt., U.S.A.
Pugh, Luther Samuel	Perrysburg	1st Lt., U.S.A.
Repasky, John G.	Akron	Capt., U.S.A.
Ringer, Robert A.	Cambridge	1st Lt., U.S.A.
Root, Benjamin	Cincinnati	1st Lt., U.S.A.
Roth, Harold P.	Cleveland	1st Lt., U.S.A.
Schilp, John P., Jr.	Cleveland	1st Lt., U.S.A.
Scuderi, John J.	Akron	1st Lt., U.S.A.
Stewart, James Bell	Cleveland	1st Lt., U.S.A.
Taylor, Ross Van	Cleveland	1st Lt., U.S.A.
Urban, Frank K.	Cleveland	1st Lt., U.S.A.
Walter, Clyde Kenneth	Youngstown	1st Lt., U.S.A.
Werle, Jacob M.	Cleveland	1st Lt., U.S.A.
Wilkins, John Monroe	Marysville	1st Lt., U.S.A.
Woolsey, Frank M.	Cleveland	1st Lt., U.S.A.

* * *

Daugherty, C. Mason	Peninsula
	Cheyenne River Indian Reservation
Kovacs, Joseph, Jr.	Cleveland
McCracken, John G.	Willoughby
	Asst. Surg., U.S.P.H.S.
	Canadian Army

WIN PROMOTIONS

Bard, A. K.	Cleveland	Capt., U.S.A.
Butner, Charles O.	Shiloh	Capt., U.S.A.
Clark, Clyde E.	Dayton	Capt., U.S.A.
Elliott, Wm. E.	Alliance	Major, U.S.A.
Goldberg, Morris	Columbus	Capt., U.S.A.
Hamilton, Frank E.	Columbus	Major, U.S.A.
Hartzler, Adrian J.	Wooster	Major, U.S.A.
Holmes, Nicholas H.	Columbus	Capt., U.S.A.
Horowitz, Martin M.	Columbus	Capt., U.S.A.
Hughes, James J.	Columbus	Capt., U.S.A.
Hunting, Wm. F.	Cincinnati	Major, U.S.A.
Inglis, Howard H.	Springfield	Capt., U.S.A.
Kiess, John S.	Bucyrus	Capt., U.S.A.
Kingsley, Glenn Edwin	Lorain	Capt., U.S.A.
Kumpe, Carl W.	Hillsboro	Capt., U.S.A.
Meiling, R. L.	Columbus	Lt. Col., U.S.A.
Merrill, W. B.	Columbus	Major, U.S.A.
Miller, Fredk. H.	Dayton	Major, U.S.A.
Miller, R. C.	Dayton	Capt., U.S.A.
Moorman, Thomas A.	Dayton	Capt., U.S.A.
Pokerr, Leo A.	Fremont	Capt., U.S.A.
Recroft, E. W.	Cleveland	Capt., U.S.A.
Rusoff, M. B.	Columbus	Capt., U.S.A.
Schumaker, Wm. H.	Canton	Capt., U.S.A.
Surdyk, Jerome S.	Dayton	Capt., U.S.A.
Whitacre, Daniel J.	Columbus	Major, U.S.A.

TABULATIONS BY COUNTIES

Adams	2	Guernsey	6	Muskingum	7
Allen	38	Hamilton	373	Noble	1
Ashland	11	Hancock	13	Ottawa	8
Ashtabula	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	4
Belmont	10	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	27	Holmes	2	Preble	7
Carroll	1	Huron	15	Putnam	5
Champaign	8	Jackson	1	Richland	39
Clark	31	Jefferson	31	Ross	21
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	17	Scioto	19
Columbiana	11	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	9	Stark	91
Cuyahoga	629	Lorain	35	Summit	137
Darke	6	Lucas	150	Trumbull	29
Defiance	4	Madison	6	Tuscarawas	18
Delaware	5	Mahoning	106	Union	2
Erie	10	Marion	16	Van Wert	9
Fairfield	9	Medina	13	Vinton	2
Fayette	2	Meigs	2	Warren	4
Franklin	211	Mercer	6	Washington	6
Fulton	6	Miami	13	Wayne	12
Gallia	6	Monroe	1	Williams	8
Geauga	4	Montgomery	125	Wood	16
Greene	8	Morgan	4	Wyandot	2
Total					2593

Nurses' Aides Should Join OCD

All Volunteer Nurses' Aides should be enrolled in the U.S. Citizens Defense Corps, the Medical Division of the Office of Civilian Defense advises.

The immediate importance of this announcement lies in the fact that Nurses' Aides must be enrolled in the Nurses' Aide Unit of the Citizens Defense Corps, if they are to be eligible for the benefits provided under the War Civilian Security Program of the Federal Security Agency for all members of or trainees for the Citizens Defense Corps who may be injured in line of duty.

Have You Seen Your Congressman About the Wagner Bill?

Did you call on or write your congressman to express your opposition to S. 1161, the Wagner-Murray-Dingell bill, as suggested in the personal communication from The Council to all members dated August 16? If not, you still have time to do so. Congress will not reconvene until September 14. If you cannot reach congressmen at their homes, write to them at Washington. Only by concerted action can this bill be defeated and the private practice of medicine retained.

Here is the list of Ohio members of the 78th Congress:

United States Senators

Robert A. Taft (R) Cincinnati
Harold H. Burton (R) Cleveland

Representatives in Congress

At Large

George H. Bender (R) Cleveland Heights District

1. Charles H. Elston (R) Cincinnati
2. William E. Hess (R) Cincinnati
3. Harry P. Jeffrey (R) Dayton
4. Robert F. James (R) Lima
5. Cliff Clevenger (R) Bryan
6. Edward Oscar McCowen (R) Wheelersburg
7. Clarence J. Brown (R) Blanchester
8. Frederick C. Smith (R) Marion
9. Homer Alonzo Ramey (R) Toledo
10. Thomas A. Jenkins (R) Ironton
11. Walter Ellsworth Brehm (R) Logan
12. John M. Vorys (R) Columbus
13. Alvin F. Weichel (R) Sandusky
14. Ed Rowe (R) Akron
15. P. W. Griffiths (R) Marietta
16. Henderson H. Carson (R) Canton
17. J. Harry McGregor (R) West Lafayette
18. Earl R. Lewis (R) St. Clairsville
19. Michael J. Kirwin (D) Youngstown
20. Michael Aloysius Feighan (D) Cleveland
21. Robert Crosser (D) Cleveland
22. Frances P. Bolton (R) Lyndhurst

Senators may be addressed at Senate Office Building, Washington, D.C.

Congressmen may be addressed at House Office Building, Washington, D.C.

New Pamphlet on Eye Health

The National Society for the Prevention of Blindness is publishing a bi-monthly newsletter, entitled *Eye Health and Safety News*, for free distribution among physicians, nurses, public health officials, social workers, educators, safety engineers, and others who are professionally interested in some aspect of sight conservation. Those who are interested in receiving this new publication regularly are invited to write to the Society, 1790 Broadway, New York (19), N.Y.

Nurse Unit Formed in Procurement and Assignment Service

The Nursing Supply and Distribution Unit of the War Manpower Commission has been made the Nursing Division of the Commission's Procurement and Assignment Service, Paul V. McNutt, Chairman of the Commission, has announced.

"The objective of the Nursing Division," Mr. McNutt explained, "are the same as those divisions of the Procurement and Assignment Service now dealing with the dentist, veterinary, physician, and sanitary engineer for their professions. They involve the recruitment of sufficient nurses to meet the needs of the Armed Forces and the provision of minimum adequate nursing care for the civilian population, non-military governmental agencies, and industry."

Recommendations regarding the operation of the nursing division will be made to the Directing Board of Procurement and Assignment Service, headed by Dr. Frank H. Lahey, of Boston, by a Nursing Advisory Committee. The Nursing Division is represented on all the present advisory committees to the Directing Board that are concerned with problems that affect nurses. Miss Katherine Tucker, Philadelphia, Pa., and Miss Laura Grant, New Haven, Conn., have been appointed to the Directing Board.

Miss L. Louise Baker has been named an Assistant Executive Officer of the Procurement and Assignment Service, to work under the general direction of the Directing Board and Dr. Maxwell Lapham, Executive Officer. She will have the responsibility of carrying out the functions of the Nursing Division and will be assisted by Miss Ruth A. Heintzelman. The already existing technical, clerical and statistical sections of the Central Office of Procurement and Assignment Service will be utilized and four nurse consultants will be added to the staff to supervise the work in the field.

The activities of the Nursing Division in the field will be carried out by separate State and local committees. The Supply and Distribution Committee of the State Nursing Councils for War Service, representing the various nursing organizations in each State and serving without compensation, will act as the State Committee for Nurses for the Procurement and Assignment Service and the Local Nursing Council for War Service will act as the local committee in each community. Both State and Local Committees will function independently of but in cooperation with the State Committees for Physicians of the Procurement and Assignment Service.

Galion—Dr. O. R. Kackley has been appointed acting city health commissioner to fill the vacancy caused by the death of Dr. J. George Mannhardt.

Physicians Must File Estimate of Income and Declaration of Estimated Tax for 1943 On or Before September 15

ON or before September 15, 1943, physicians and all other persons who receive their income from professional fees, must file an estimate of income and declaration of estimated tax for the year 1943, with District Collectors of Internal Revenue.

At that time credit may be taken against the estimated tax liability for the year 1943 for the payments already made on the 1942 assessment. One-half of the remaining current tax liability will be due on September 15, 1943, and the balance on December 15, 1943. A final and complete return for the year 1943 must be filed on or before March 15, 1944, and any necessary adjustments between the actual tax liability and the payments made on the basis of the estimated tax will be made at that time.

PENALTY CLAUSE

If the tax computed on the estimated return for 1943 is more than 20 per cent less than the actual amount of the tax as shown in the complete return filed on March 15, 1944, the taxpayer is subject to an additional assessment of an amount equal to such excess, or equal to six per cent of the amount by which the actual tax exceeds the estimated tax, whichever is the lesser. A penalty of ten per cent of the tax will be added in case of failure to file an estimate of income and declaration of estimated tax within the time prescribed.

If, after filing his estimated return on September 15, 1943, the taxpayer finds that he has underestimated his income to the extent that he may be subject to the six per cent additional tax described above, he may file an amended estimate of income and declaration of tax on or before December 15, 1943.

OTHERS WHO MUST FILE

Other persons who must file estimated returns on or before September 15 include: All persons with taxable incomes who do not have salaries or wages subject to withholding; who do have salaries or wages subject to withholding, but expect this year, or had in 1942, an income of more than \$2,700 if single, or \$3,500 if married; who expect this year, or had last year, an increase of more than \$100 from sources other than salary or wage, or who filed an income tax last year and whose salary in 1943 is lower than in 1942. An exception is made in the case of farmers who have until December 15, 1943.

"FORGIVENESS" PROVISIONS

Provision is made for "forgiveness" of 75 per cent of the 1942 or 1943 tax, whichever is the

lesser. Providing the 1942 tax is the lesser the 25 per cent liability which is not forgiven is payable in two equal payments, on March 15, 1944, and March 15, 1945. When the 1942 tax is greater, forgiveness will be made in accordance with the income tax law in effect at the time of filing the 1943 estimated return and the filing of the actual return for 1943 on March 15, 1944.

The tax liability for 1943 will be computed on the same rates and exemptions as were applicable on the 1942 net income, with the exception of the 5 per cent Victory Tax. Taxpayers will be allowed the same type of deductions as in previous year. Men and women serving with the Armed Forces will have an additional exemption of \$1,500 of their service pay from income and Victory taxes.

Authentic information regarding the current U. S. Income Tax Law was published in the February, 1943, issue of *The Ohio State Medical Journal*, pages 151-157. An analysis of the Current Tax Payment Act of 1943—the so-called Pay-As-You-Go plan—appeared in the July, 1943, issue of *The Journal*, pages 668-670.

Health Department Personnel Should Be Utilized, OCD Says

In order that health and sanitation may be maintained during and after an air raid or other wartime disaster, health officers, with their deputies, division chiefs and sanitary inspectors, should be members of the U.S. Citizens Defense Corps, the Office of Civilian Defense advises in Operations Letter No. 131, entitled "The Health Department in Civilian Protection."

Health officers should develop plans for prompt action in emergencies to assure: (1) maintenance of safe water, food, and milk supplies; (2) sanitary disposal of sewage and putrescible wastes; (3) sanitation at mass feeding center, rest center, casualty stations, billets, and other temporary facilities for war emergencies, and (4) control of communicable disease, the Operations Letter points out. Planning should include the mechanism for mobilizing essential personnel during and following an emergency, it is suggested. Another important duty will be to make arrangements for immediate instruction of the public in emergency sanitary measures.

All health department personnel must complete training in accordance with regulations of the Citizens Defense Corps before they can become members, and, in addition, the health officer may prescribe special technical training for them after they have been duly enrolled.

WAR NOTES

Capt. E. H. Cushing, M.C., U.S.N.R., of Cleveland, was a member of the special typhus commission which went to North Africa to prepare a program to prevent an outbreak of typhus among American forces. He has returned to Washington.

* * *

The Legion of Merit award has been conferred on Lt. Harold A. Cassady, M.C., U.S.N.R., of Cincinnati, for meritorious conduct as a medical officer of a beach party during an assault on and occupation of French Morocco last November.

* * *

Lt. Col. Claude S. Perry, formerly of Columbus and who for two years was assistant chief of the Medical Division, State Selective Service Headquarters, has been transferred from the 203rd General Hospital Unit, Fort Lewis, Washington, where he was assigned last spring, to the McCaw General Hospital at Walla Walla, Washington. The Army found that it needed someone to serve as chief of eye, ear, nose and throat at the Walla Walla hospital, so it sent Col. Perry over there in a hurry.

* * *

Capt. Robert E. Wolf, formerly of Uhrichsville, is now with the Office of Strategic Services, Washington. His postal address is Box 2601, Washington, 13, D. C. He writes that *The Ohio State Medical Journal* still tops his list of medical literature.

* * *

The Ohio State Medical Journal is "most welcome", although received a bit late at times, in the jungle where news is scarce but where there is plenty of "mud, rain and tropical sun", writes Capt. Ross R. Zeno, formerly of Akron. Capt. Zeno says his work has been interesting and as a member of a surgical team in the Southwest Pacific he has seen many interesting cases. His address is A.P.O. 928, 28th Surgical Hospital, Postmaster, San Francisco.

* * *

Capt. James J. Hughes (note the promotion), formerly of Columbus, is stationed at Shaw Field, South Carolina. "Jo" writes that he has been fortunate in that he has been able to practice medicine at all installations. At present he is on ward service, which is "extremely interesting" and that in addition he is serving as executive officer, which "affords enough contact with administrative duties but not too much".

Lt. Col. Thomas M. England, for 24 years a member of the Medical Administrative Corps and executive officer of the medical branch, Fifth Service Command, Fort Hayes, died recently following a heart attack. Col. England was one of the "human guinea pigs" used in the yellow fever experiments in Cuba after the Spanish-American War. He had retired in 1940 and was recalled to active duty late in that year.

* * *

Maj. Chester H. Allen, first Portsmouth physician called to active duty in World War 2, recently spent a short leave at his home in Portsmouth. Dr. Allen, who was a captain in the Army Reserve Corps, was called to active service in 1940 and has been stationed most of the time on one of the islands near Alaska. He predicts that the public will benefit after the war from the experiences, discoveries and training of medical officers on duty with the Army and Navy.

* * *

Lt. Frank W. Anzinger, formerly of Springfield and a recent graduate of the School of Aviation Medicine, Randolph Field, Texas, has been assigned to the medical staff, Station Hospital, Oklahoma City Air Depot.

* * *

Her son, Lt. George W. Campbell, is a prisoner of the Japs at Osaka, Mrs. Nellie W. Campbell, Columbus, has been informed. Lt. Campbell was chief resident surgeon at the Elyria Memorial Hospital after graduating from Western Reserve University and before entering the Army. He was on duty in the Philippines.

* * *

Following are some excerpts from a recent bulletin mailed by Dr. George Woodhouse, Pleasant Hill, secretary of the Miami County Medical Society, to members of that society who are in the service, to give each some first-hand information on where his colleagues are and what they are doing: **Harry Shilling**—Last address was Captain at Station Hospital at Ft. Knox, Ky. However, I have been told that he was expecting shipment overseas. **Fred B. Hapke**—Now Captain and still at Patterson Field, Dayton. **Howard Farmer**—Promoted to Captain and stationed at Sherman Field, Ft. Leavenworth, Kans. Howard spent part of a short leave in the county a few weeks ago. He looks fine. **K. F. Lowry**—Major, Surgical Group, A.P.O. 668, care P.O.,

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17 July 1943

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Robert P. Patterson
Robert P. Patterson
Under Secretary of War

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New York City. He is having a wonderful experience in North Africa. Paul E. Foy—Promoted to Captain recently, Armd. Div., Camp Beale, Cal. Hugh Wellmeier—Major, 1570 Medical Sec., Ft. Breckenridge, Morganfield, Ky. B. L. Hyde—Major, Port of Embarkation, Station Hospital, Jefferson Branch, New Orleans, La. E. R. Irvin—Captain, 69th Medical Regiment, Camp Maxey, Texas. Emory completed a six weeks course at Carlisle Barracks, and then went on maneuvers with the Army in Louisiana. Ralph D. Yates—Lt. Commander, U.S.N.T.S. Bainbridge, Md. W. W. Trostle—Captain, Army Air Corps, 564th S.A.W. Bn., Drew Field, Tampa, Fla. E. R. Torrence—Lt. s.g. Medical Corps, U.S.N.R., Parris Island, S.C., Marine Barracks.

* * *

Having watched the magic which blood plasma performed on wounded soldiers in the Aleutian area, Capt. Martin M. Horowitz, Army Medical Corps, donated a pint of blood at the Columbus Red Cross Blood Doner Center while home on furlough. He entered the service in 1941 after an internship at St. Francis Hospital.

* * *

Capt. Maurice B. Rusoff, Columbus, formerly a member of the Medical Staff of the State Industrial Commission, is chief of laboratory of the 99th Evacuation Hospital, which has been on desert maneuvers in California. Dr. Rusoff was recently promoted to his present rank.

* * *

Some very interesting letters have been received by relatives and friends from Capt. Lester A. Hamilton, formerly of Athens, who has been in North Africa since the first of the year. Capt. Hamilton writes that he has visited most of the places which have been mentioned in the news—Casablanca, Tunis, Bizerte, Mateur, etc.—in everything from a jeep to a bomber; that it has been 125 degrees in the shade, and not much shade; that the clinical thermometers stuck at 106.4. He says blood plasma is performing miracles and hopes the folks back home will continue to send it in large quantities.

* * *

Here are a few excerpts from a letter received by *The Journal* from Maj. P. B. Giber, formerly of Girard, who is located on "an island in the Pacific":

"I received my first copy of *The Journal* since being overseas. It is a real treat to me to be able to sit down and read where many of my friends are now and where more of them are going. Somehow or other it shortens the distance between us by many miles. I am commanding officer of a hospital somewhere in the Pacific area servicing our own troops in addition to those of another nation. The hospital itself

is in a beautiful setting beneath cocoanut trees facing the ocean. In addition, there are many banana plantations and pineapple groves—you can see that fruit will be no problem to us at all. The buildings themselves are of a semi-permanent construction with wooden floors and a somewhat stable foundation. Our equipment is excellent and compares favorably with that of usual hospitals back in the states. This is as it should be for we do definitive work and do not readily have recourse to a larger installation although it can be arranged if necessary. Our work here includes the usual variety of cases to be found in any hospital plus a few diseases endemic in this region such as filariasis".

* * *

Lt. J. P. Hockwalt, formerly of Lebanon and Dayton, sends greetings from the Station Hospital, Army Air Force Technical School, Chicago. Two other Dayton physicians, Lt. Henry Duckwall and Lt. Ray Paul, who were assigned there, have since been transferred to Seymour Johnson Field, North Carolina.

* * *

Maj. Malcolm O. Cook, of Hamilton, has written to his family about meeting two other Hamilton physicians in North Africa—Capt. Carl A. Roden and Lt. Joseph L. Pater.

* * *

Lt. Comdr. Wallace B. Taggart, Dayton, graduated recently from the Chemical Warfare Service School, Edgewood Arsenal, Md.

* * *

The family of Lt. Comdr. Thomas W. Geoghegan, Fostoria, has received a letter from him that he is "safe and well" following the sinking of the U.S.S. McCawley, a transport, in the South Pacific. The letter states that he was picked up by a destroyer after the Japs had bombed the McCawley, minus everything except the clothes he was wearing and what he had in his pockets.

* * *

Notes on Youngstown medical officers . . . Lt. Comdr. James L. Fisher has returned to Camp Peary, Williamsburg, after a few days' leave at his home in Youngstown. . . . Capt. Craig C. Wales spent his leave visiting friends and his brother, Dr. R. E. Wales. . . . It's now Lt. Col. Charles A. Wagner of Denver. . . . Maj. S. D. Goldberg flew from Camp Davis, N.C., for a short visit with Youngstown relatives. . . . Capt. A. K. Phillips is now chief of general surgery, Station Hospital, Patterson Field. . . . Sanford Kronenberg has been promoted to the rank of captain and is at Camp Atterbury, Ind. . . . He's been transferred to the Army Air Forces School of Applied Tactics, Warner Robins Air



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Mansfield, Ohio

Service Command, Warner Robins, Ga., Capt. M. M. Kendall has written to local friends. . . . Lt. L. S. Shensa is in charge of the Hospital Infirmary, Camp Sibert, Alabama, a chemical warfare camp.

* * *

Capt. John Borelli, formerly of Hamilton, is stationed at Fresno, Calif.

* * *

Col. E. C. Cutler, chief surgical consultant with the U.S. Army in the European zone, has been awarded an honorary fellowship in the Royal College of Surgeons. Dr. Cutler, before becoming Moseley professor of surgery at Harvard University, was professor of surgery at Western Reserve University School of Medicine.

* * *

One of the first women physicians to be commissioned in the Army Medical Corps was Dr. Clara Raven, formerly of Youngstown, later of Scranton, Pa. She has been stationed at the Newton D. Baker General Hospital, Martinsburg, W. Va.

* * *

Lt. Col. Perrin Long, Johns Hopkins University School of Medicine, who is a native Ohioan and well known among Ohio physicians, is serving as a medical director in the North African theatre.

* * *

The following interesting articles on medical war subjects were published in the August 14, 1943, issue of *The Journal of the American Medical Association*: "The Army Medical Library", Lt. Col. Harold W. Jones; "The United States Army and Medical Education", Maj. Gen. Norman T. Kirk, surgeon general, U.S.A.; "The Army Specialized Training Program", Col. F. M. Fitts; "The United States Navy and Medical Education", Rear Admiral Ross T. McIntire, surgeon general, U.S.N.; "The Navy Premedical Program", Comdr. B. W. Hogan; "Public Health Service and the War", Surgeon General Thomas Parran, U.S. Public Health Service; "The Procurement and Assignment Service—Current Policies", H. S. Diehl, M.D., member of Directing Board.

* * *

Among the members of the ninth graduating class of aviation physiologists at Randolph Field was Lt. Seaburt Goodman, formerly of Cleveland.

* * *

Maj. Howard D. Fabing, Cincinnati, is chief of neuropsychiatric branch, medical division, of the new Finney General Hospital, Thomasville, Ga.

* * *

Recent graduates of the Randolph Field School of Aviation Medicine, following completion of the course for aviation medical examiners, included

the following Ohio medical officers: Lt. Morris L. Battles, East Cleveland; Lt. Kenneth E. Bennett, Strasburg; Lt. Edmond J. Booth, Columbus; Lt. Riley E. Frush, Lexington; Lt. Stephen V. Geroch, Akron; Capt. Courtney L. Jack, Cincinnati; Capt. Charles F. Kiefer, Cincinnati; Capt. Alexander H. Kimmel, Norwalk; Capt. George L. Maltby, Cincinnati; Lt. Merritt K. Marshall, Findlay; Lt. Jerome H. Meyer, Cleveland; Lt. William F. Mitchell, Columbus; Lt. Guy S. Peterson, Jr., Cleveland; Lt. Earl E. Pinnell, Cleveland; Lt. Ernest D. Rehm, Toledo; Lt. Raymond H. Schroeder, Quincy; Lt. Birna R. Smith, Lewisburg; Lt. George R. Smith, Painesville; Lt. Lloyd M. Snively, Massillon; Lt. Ralph J. Starbuck, Salem; Lt. John P. Urban, Columbus.

* * *

Excerpt from a letter received in Cleveland from Lt. Col. C. H. Hodgkinson, now in Iceland: "Did you ever see a brilliant rainbow at 11 p.m.? Well, I have. Did you ever see the sun rise and set again in about ten minutes? Well, I have. Did you ever see miles of bare lava beds, no trees, no foliage, no birds? Well, I have. Would you believe that I am doing thyroidectomies in the Army? Well, I am."

* * *

Col. Alvin C. Miller, U.S. Army Medical Corps, a graduate of the Medical College of Ohio, Cincinnati, in 1909, has been awarded the Legion of Merit for exceptionally meritorious services as commanding officer at Tripler General Hospital on and following the Japanese attack on the Hawaiian Islands on December 7, 1941, when a large number of wounded men were handled at the hospital in a short period of time.

* * *

Following is an excerpt from an editorial in the July 17, 1943, issue of *The Journal of the A.M.A.*, revealing that bacterial warfare is not feasible:

"The General Disarmament Conference of 1932 considered bacterial warfare serious enough to prohibit its use. This action contributed to the popular fear of pathogenic micro-organisms as effective military weapons. To allay this fear come two timely reprintings of the classic paper by Col. Leon A. Fox of the U.S. Army Medical Corps, which summarizes the current opinion of military experts.

"Summarizing his argument, Colonel Fox concludes that there are 'practically insurmountable technical difficulties preventing the use of biological agents as effective weapons of warfare.' In this he confirms the previous opinion of numerous German bacteriologists, who, five years before the first war, were assigned the task of suggesting safe and effective weapons of bac-

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terial warfare. Ehrlich, for example, replied that 'nothing [he] could suggest would be of more than a nuisance value to the enemy and might even be a source of danger to our own troops.'"

* * *

The Surgeon General of the Army, Major Gen. Norman T. Kirk, is reported to have said that the death rate in the army's evacuation hospitals during the African campaign was "the lowest rate of any army at any time" and was between 2.5 and 3.5 per cent of admissions in comparison with a mortality rate during the last war in such hospitals of 15 per cent. General Kirk ascribed the recent low record to the use of plasma, excellent surgery and sulfonamide drugs.

* * *

The Army Air Forces School of Air Evacuation at Bowman Field, Kentucky, has now been established as a permanent installation. This paves the way for expansion of the program for training nurses, enlisted men and flight surgeons for air evacuation duty. About 50,000 men who were disabled by wounds or illness have been transported in air ambulances. The program, planned by Brig. Gen. David N. W. Grant, the Air Surgeon, has proved that all types of wounded men can be carried by air. Aboard each of the airplane ambulances is either a flight surgeon or an army nurse, and also one noncommissioned officer of the Medical Department. The Army transports are easily converted from troop planes to flying hospitals, and some carry as many as 24 patients. In New Guinea, 7,000 disabled men were evacuated in one month from Buna across the Owen Stanley Mountains to Port Moresby. Another 7,000 men were flown in, as well as a field hospital of 250 beds. A complete 25 bed hospital, including surgical equipment, supplies, beds and medicine, was flown from St. Louis to a base in Alaska in arrangement with the Air Transport Command, Army Air Forces, when fire destroyed a base hospital. In less than six days the hospital was completely installed and in operation.

* * *

Reports on Columbus physicians in the armed forces . . . Capt. J. M. Gettrost is somewhere in the South Pacific, his wife has been informed. . . . Lt. Col. Augustus A. Hall has been assigned to overseas duty and his address is 34th Station Hospital, A.P.O. No. 528, c/o Postmaster, New York City. . . . Capt. Robert D. Myers was recently in Columbus on a ten-day leave from Fort Sam Houston, Texas. . . . Capt. John B. Gravis has returned to McCloskey General Hospital at Temple, Texas, after spending a convalescent leave at home. Capt. Gravis suffered a fractured leg while on maneuvers. . . . Capt.

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Charles W. Edwards has been transferred from Fort Sheridan, Illinois, to Camp Adair, Corvallis, Oregon. . . . Capt. James C. Vanneter has been given a new assignment. He is now at the Station Hospital, Army Air Force Bombing & Gunnery Range, Tonopah, Nevada. . . . Capt. Wiley L. Forman has also been assigned to overseas service. His new address is 75th Station Hospital, A. P. O. No. 957, c/o Postmaster, San Francisco, Calif. . . . Capt. P. A. Volpe recently flew to Columbus on a fifteen-day leave and Mrs. Volpe returned with him to Camp Cooke, California. . . . Commander Harry M. Sage believes in the old adage of "Join the Navy and see the world." He is ranking medical officer on a large troop transport ship, and reading between the lines of his carefully guarded conversation one gathers that Commander Sage has had some interesting experiences. His travels have taken him to the shores of all five continents and into the waters of all but one of the seven seas. . . . Capt. E. M. Kilpatrick, who is located at Bushnell General Hospital, Brigham City, Utah, reports that all is not drudgery in army life. Ogden, about 20 miles distant, recently offered the thrill of a first rodeo.

* * *

A recent article in the *Akron Beacon Journal* describes the Horatio Alger success of Dr. John J. Scuderi, former Akron physician—now Lt. John J. Scuderi, Army Medical Corps. A native of Sicily and a graduate of Loyola Medical School, Dr. Scuderi, because of government red tape and technicalities, was unable to obtain citizenship prior to the outbreak of war. In 1941 when he tried to enlist as a medical officer, his application was rejected. In July, 1942, he enlisted as a private. Ninety days later, through special Army provisions, he received his citizenship papers. In

January, 1943, he was promoted to staff sergeant and served in the medical department at the Army Air Base, Salt Lake City. Recently he was commissioned as a First Lieutenant, Army Medical Corps, and is now at Carlisle Barracks for special training.

* * *

Lt. John M. Kidd, U.S.N.R., recently visited friends and relatives at his home in Galion, enroute to the Mayo Clinic where he will take special training.

* * *

Capt. William L. Porter, Westwood (Cincinnati), is now in the Pacific, according to word received by his family.

Dr. McCormick Named To Direct Elks' Overseas Program for Soldiers

Dr. Edward J. McCormick, Toledo, secretary of the Elks' War Commission, has been assigned by the B.P.O.E., to direct the organization's program for the benefit of soldiers who are expected to occupy Nazi Europe, according to press reports.

A former Grand Exalted Ruler of the Elks, Dr. McCormick was named to his new post at the 79th Grand Lodge Session and War Conference held recently in Boston. Foreseeing the early fall of Italy, officials of the Elks were quoted as stating that Dr. McCormick and his aides, operating from a central office in Rome, would set up Elks units and huts for American service men in every big center overseas. They said that the program would be extended later to the Pacific battle zones.

Fostoria—The Masonic 50-year pin was recently presented to Dr. John H. Norris in honor of a half-century of membership in that order.



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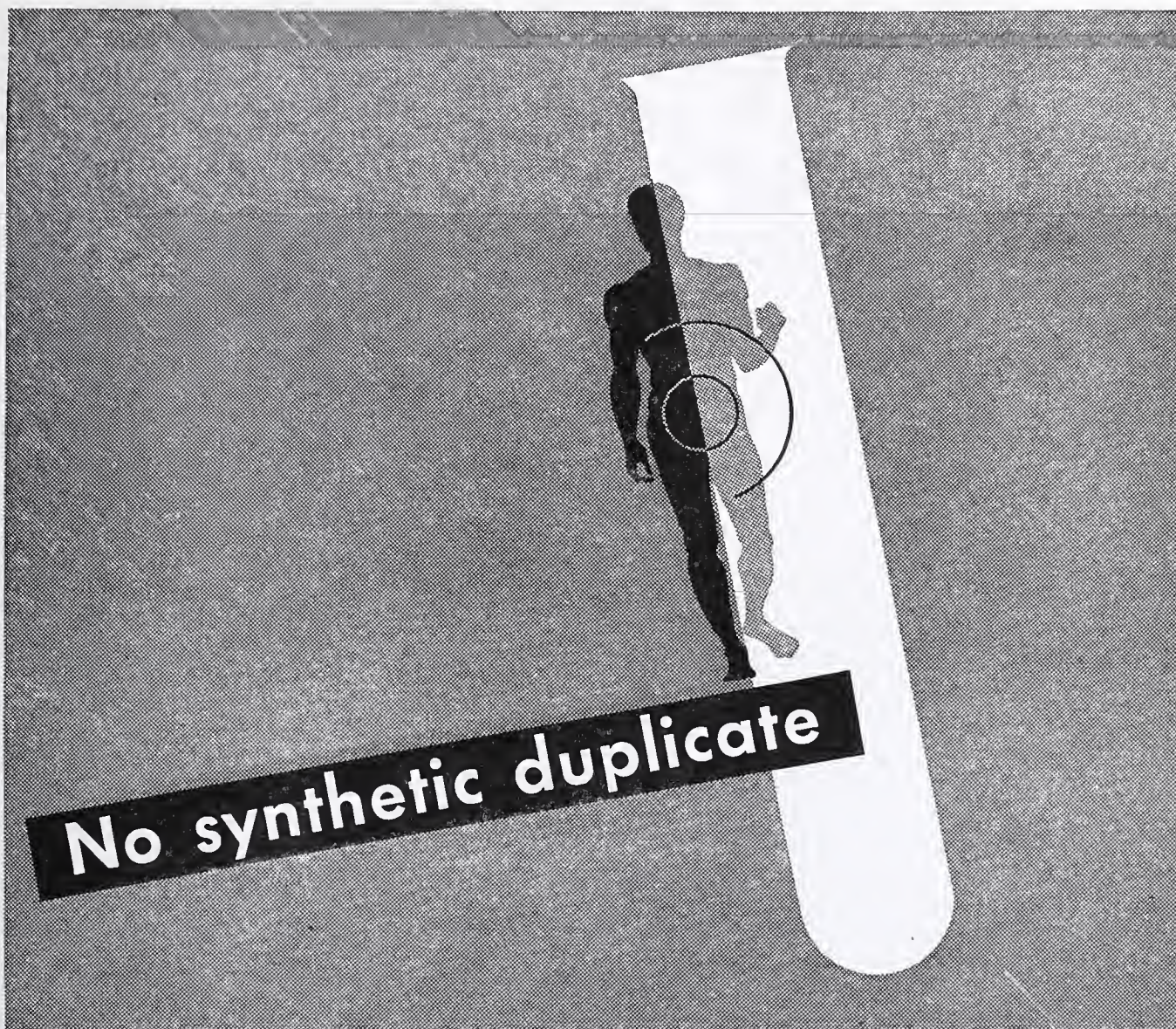
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Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.



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In Memoriam

Donald Cole Barber, M.D., Grafton; George Washington University School of Medicine, 1930; aged 43; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 13. Dr. Barber had practiced in Grafton for 12 years. He served 28 months overseas as a member of the Marine Corps in World War I, and was awarded the Silver Star for rescuing his wounded captain under fire. Dr. Barber also received the croix de guerre from the French government. He was a member of the Methodist Church, Masonic Lodge and the American Legion. His widow, two sons and his mother survive.

Edwin C. Bollinger, M.D., Toledo; College of Medicine and Surgery, (Ph. M.), Chicago, 1894; aged 72; died July 27. Dr. Bollinger retired because of ill health last Spring, after nearly 50 year's practice in Toledo. He was a member of the Masonic Order, Swiss Society and the Foresters. His widow and a brother survive.

Austin Ray Edwards, M.D., Sidney; Ohio State University College of Medicine, 1916; aged 56 former member of the Ohio State Medical Association and the American Medical Association; died July 10. Dr. Edwards devoted practically all of his medical career to Sidney, locating there shortly after his honorable discharge from the army in which he served in World War I. He was with the British Expeditionary Forces, and was overseas for 11 months, attached to a tank battalion most of this time. Dr. Edwards was a member of the Congregational Church, American Legion, and Disabled War Veterans. Surviving are his widow and a daughter.

Edward Samuel Folk, M.D., Canton; Ohio Medical University, Columbus, 1902; aged 66; member of the Ohio State Medical Association and Fellow of the American Medical Association;

died July 31. Dr. Folk had been Mayor of Canton since January 1, 1939. He practiced there for 41 years, and was one of the city's leading citizens. Dr. Folk had served as councilman, councilman-at-large, member of the board of education and member of the board of health. He was a member of the staff of Aultman Hospital, and chief of staff in 1937. Dr. Folk was a past-president of the Canton Medical Library Association. During World War I he was on the staff of a base hospital at Camp Dix, N.J. Dr. Folk was a member of the Christian Church, Exchange Club, American Legion, McKinley Club, Masonic Orders, Knights of Pythias, Moose and several sportsmen's organizations. His widow and a daughter survive.

Theodore Lawrence Gregg, M.D., Wilmar, Calif.; Eclectic Medical College, Cincinnati, 1897; aged 69; former member of the Ohio State Medical Association and the American Medical Association; died July 21. Dr. Gregg retired seven years ago after having practiced in Dayton for 34 years and in Lewisburg for five years. His widow and a brother survive.

Robert Francis Heatley, M.D., Toledo; University of Michigan Medical School, 1923; aged 48; member of the Ohio State Medical Association, Fellow of the American Medical Association and the American College of Surgeons; died August 3. Dr. Heatley served in World War I during his medical training, completing his education after the war. He had practiced in Toledo for 18 years. Dr. Heatley was secretary of the staff and director of the department of obstetrics and gynecology at Mercy Hospital, and a member of the staffs of Lucas County and Woman's and Children's Hospitals. He was a member of the Catholic Church and the Knights of Columbus. Surviving are his widow, two daughters, a son,

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two sisters and six brothers, including Dr. Thomas F. Heatley, Toledo.

Louis Thales Hess, M.D., Columbus; Jefferson Medical College of Philadelphia, 1895; aged 73; Fellow of the American Medical Association and the American College of Surgeons; died July 28. Col. Hess retired in 1931 after 32 years in the Army Medical Corps. Commissioned a first lieutenant Jan. 30, 1899, Col. Hess served for two years in Cuba during the American occupation, and in 1902 was sent to the Phillipines for three years. During World War I he was chief of the medical service of the National Guards units in the militia bureau in Washington. For four years he was superintendent of the Ancon, now Gorgas Hospital, in Panama. From 1923 to 1931 Col. Hess was stationed at Columbus as Fifth Corps area surgeon. He was a Mason. A brother survives.

Robert Virgil Huggins, M.D., Westerville; Pulte Medical College, Cincinnati, 1891; aged 74; died July 23. Dr. Huggins formerly practiced in Columbus. He was a member of the Methodist Church. His widow and a brother survive.

H. George Mannhardt, M.D., Galion; University of Wooster, Medical Dept., Cleveland, 1904; aged 65; former member of the Ohio State Medical Association and the American Medical Association; died July 20. City health commissioner for the past 12 years and one time Crawford County coroner, Dr. Mannhardt practiced in Galion for 28 years. Two sisters survive.

Charles White McGuire, M.D., Columbus; Toledo Medical College, 1898; aged 70; former member of the Ohio State Medical Association and the American Medical Association; died July 29. Dr. McGuire practiced in Toledo until 1941, when he retired because of ill health. He was active in Masonry and for 30 years was drum major of several bands. A son and a daughter survive.

David William Medill, M.D., Martins Ferry; University of Colorado School of Medicine, 1896; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died July 28. Formerly a practicing physician in Youngstown and Martins Ferry, Dr. Medill retired in 1936. Surviving are his widow, a brother and a sister.

Abner Haven Middleton, M.D., Cable; Cleveland University of Medicine and Surgery, 1887; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died July 14. Prominent in Champaign County Republican politics, Dr. Middleton practiced there for over 50 years. His widow, a sister and a brother survive.

Bernhard Newburger, M.D., Cincinnati; Johns Hopkins University School of Medicine, 1922;

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aged 46; member of the Ohio State Medical Association; and the American Medical Association; Fellow of the American College of Surgeons; diplomate of the American Board of Surgery; died July 18. Dr. Newburger located in Cincinnati in 1933, after several years of residency in surgery and study abroad. He was a member of the staff of Jewish Hospital and Cincinnati General Hospital, where he was assistant attending surgeon in the Department of Surgery. His widow and a daughter survive.

Henry Clyde O'Roark, M.D., Portsmouth; University of Louisville School of Medicine, Louisville, 1926; aged 46; member of the Ohio State Medical Association and the American Medical Association; died July 9. Dr. O'Roark enlisted in the Medical Corps during World War I, and served until June, 1919. After completing his medical education, he located in Portsmouth in 1927. Dr. O'Roark had been in Florida since April and died, following a heart attack, at the Veterans' Hospital in St. Petersburg. He was a member of the Methodist Church, Masonic Lodge, Jr. O.U.A.M., and the Eagles. Surviving are his widow, a son, five sisters and a brother.

Linton R. Sayler, M.D., Dayton; Medical College of Ohio, Cincinnati, 1888; aged 81; died July 21. Dr. Sayler practiced in Dayton for over 30 years. A sister survives.

John Dillon Wakefield, M.D., Cincinnati; Miami Medical College, Cincinnati 1893; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died July 17. Dr. Wakefield practiced in Cincinnati and Loveland for 45 years, retiring six years ago because of failing health. He practiced in Loveland from 1893 until he was commissioned in the Medical Corps of the U. S. Army in World War I. Upon his return from a year overseas as a captain, Dr. Wakefield opened an office in Cincinnati. Survivors include his widow, a daughter and two sons.

Edward William Wallace, M.D., Cincinnati; University of Chicago School of Medicine, 1935; aged 35; former member of the Ohio State Medical Association and the American Medical Association; died July 11. Dr. Wallace had been on leave of absence as assistant professor of pharmacology in the University of Cincinnati since July 1, 1942 in order to go to the Merck Co., Rahway, N. J., as director of its pharmacology laboratory. He was killed when he fell from the mast of his boat at Cranford, N. J. Dr. Wallace, prominent in the field of cancer research, went to Cincinnati from the National Institute of Health in 1937. He had previously been on the faculty of the University of Chicago. Surviving are his widow, a daughter and two sons.



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The Army through its own facilities usually provides complete medical and hospital care for military personnel on the active list. Sometimes, however, soldiers are away from such facilities and emergencies arise when it is necessary to procure civilian medical and hospital treatment. Generally, accounts for such services at reasonable rates are proper public charges but, under the following circumstances, existing law or regulation forbid payment from public funds:

1. When the individual is absent from his station without proper authority or in desertion.

2. When army or other government medical facilities (naval, United States Public Health Service, Veterans Administration, Indian, for example) are available in the vicinity.

3. When the service covers treatment of an individual for a chronic disability or an elective operation for a condition which does not endanger the life of the individual and would not preclude travel or transfer to an army or other government hospital.

4. When the individual is not on the active list of the Army; that is, when he is on the inactive retired list or is a member of the inactive reserve. Selectees who have passed their physical examinations and have been inducted into the Army, but are permitted to go home to arrange their personal affairs before reporting at a reception center for military duty, are listed as "enlisted reserve inactive" and are not entitled to treatment at public expense.

It is well, therefore, for a civilian physician or hospital to ascertain from the patient his exact status in determining whether bills for treatment should be submitted to the Army or to the individual. Bills for treatment of military personnel falling within any of the classifications 1 to 4 should be presented to the individual for settlement from his personal funds; bills for his treatment under other circumstances should be submitted to the Army for consideration.

Bills presented to the Army often give only the name of the patient and the total charge. It is important that bills show the individual's full name, army serial number, rank and organization, his post or station and his status (duty, furlough or leave; if on furlough or leave, the inclusive dates of the furlough or leave should be given). If this information is not stated, much time is lost in trying to identify the soldier, and settlement is delayed. The necessary information can generally be obtained from the soldier himself.

In addition to the information outlined in the preceding paragraph, bills should give the full diagnosis and should show complete itemization of charges with the exact period of the service, the number of visits or days of hospitalization and the rate of charge. Charges for extras not included in the rate for visits or for hospitalization such as X-ray service and medicines, should be itemized and entered separately with sufficient

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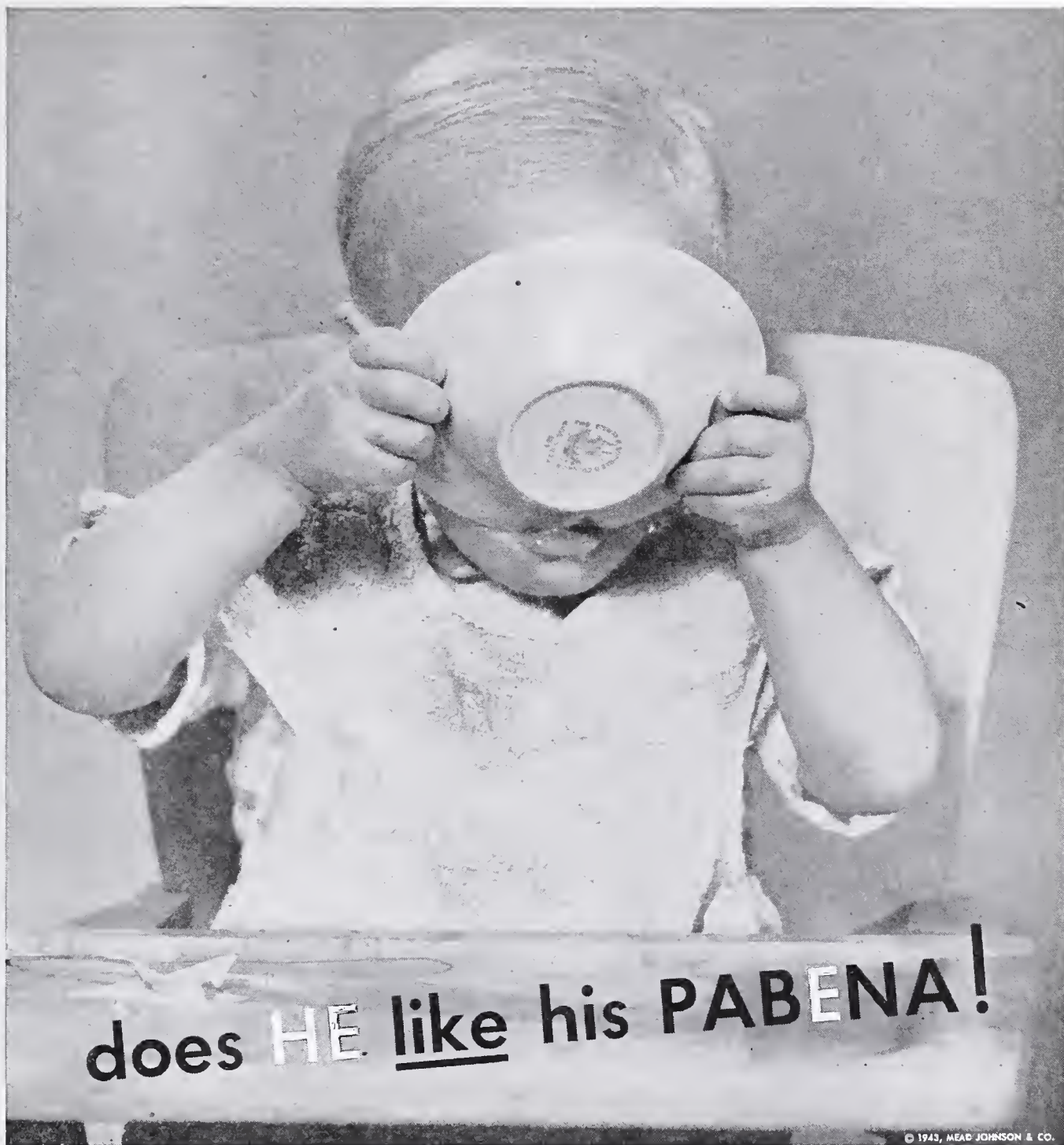
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information to permit the audit required in connection with payments from public funds. All bills should be presented in triplicate. It is recommended that bills bear the following certificate signed by the physician or, in the case of a hospital, signed in the name of the hospital by the official authorized to receive and receipt for moneys, his official designation (superintendent, treasurer) to appear below his signature:

I certify that the above bill is correct and just; that payment therefor has not been received; that the services were rendered and the medicines furnished in the care and treatment of the persons named above; that they were necessary, and that the charges do not exceed those customary in this vicinity.

Unless this signed certificate appears on bills, War Department voucher forms bearing this certificate must be forwarded to claimants for signature before their accounts can be approved for payment.

The itemized certified bill in triplicate, accompanied by the request for treatment (if any) and other pertinent papers, should be forwarded to the commanding officer of the soldier's post. If the post is not known the bill should be forwarded to the commanding general of the service command within the geographic location of the place where the services were rendered, accompanied by all information possible respecting the soldier and the circumstances in the case, in order that necessary investigation may be made with a view to identification of the soldier and payment of the account.

Mississippi Valley Medical Society To Meet at Quincy, Sept. 29-30

A splendid program has been arranged for the Ninth Annual Meeting of the Mississippi Valley Medical Society at Quincy, Ill., Sept. 29-30. Over 20 leading clinician-teachers will put on the usual intensive program that has always featured this meeting.

The entire program will be keyed to war-time medicine. A detailed program of the meeting may be obtained from the Secretary, Harold Swanberg, M.D., 209-224 W. C. U. Building, Quincy, Illinois.

Congress of Physical Therapy

The American Congress of Physical Therapy will hold its twenty-second annual scientific and clinical session September 8, 9, 10 and 11, inclusive, at the Palmer House, Chicago. All sessions will be open to the members of the regular medical profession and their qualified aides. For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.



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Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)
ADAMS

Members of the Adams County Medical Society were guests of Dr. and Mrs. R. L. Lawwill and the Adams County Health Department at a meeting of the society, August 18, at Serpent Mound Park. The guest speakers were two members of the faculty of the University of Cincinnati College of Medicine; Dr. V. E. Siler, who discussed "Acute Abdominal Conditions", and Dr. Edward Gibbs, whose subject was "Treatment of Dog Bites".—Hazel L. Sproull, M.D., Secretary.

HIGHLAND

Dr. Elmer A. Schlueter, Cincinnati, spoke on "Gastric Ulcers", at a meeting of the Highland County Medical Society, July 14, at the Hotel Parker, Hillsboro.—News clipping.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)
COSHOCKTON

Hon. J. Harry McGregor, West Lafayette, U.S. congressman for the 17th District, comprising Ashland, Richland, Knox, Delaware, Coshockton

and Licking counties, discussed the current Wagner Bill and other legislative proposals at a meeting of the Coshockton County Medical Society, August 10, at Coshockton.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)
GUERNSEY

The members of the Guernsey County Medical Society were guests of the medical staff of the Fletcher General Hospital, Thursday evening, August 12, at Cambridge. Unusual and interesting clinical cases were presented. Wives of society members were entertained by the wives of the Army officers.—M. S. Lawrence, M.D., secretary.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)
WAYNE

The Wayne County Medical Society held its annual open house and dinner party at the Leickheim Eating Parlor, in Orrville, the evening of June 23. This was the largest dinner party the society has had. The dinner, as usual at this famous eating parlor, was bountifully prepared and nicely served. The wives of deceased phy-



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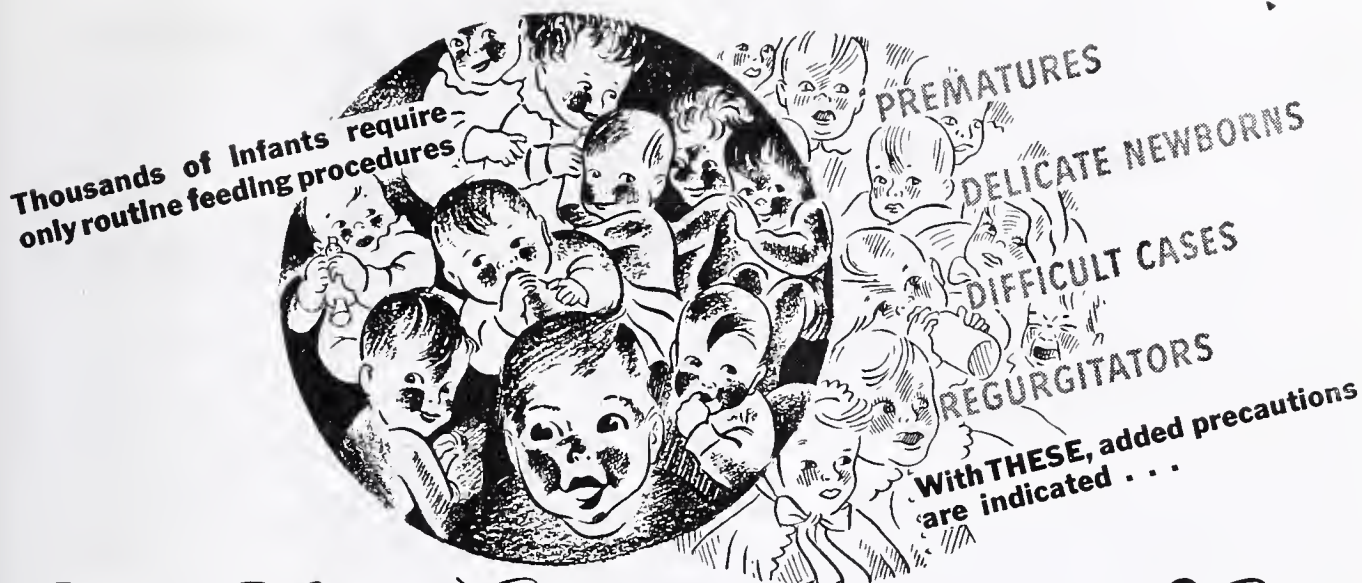
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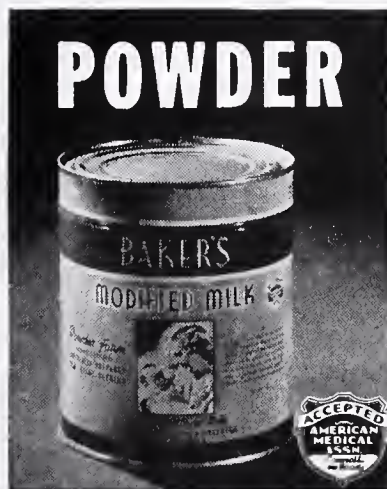
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sicians of the county and physicians serving their country, both in the homeland and on foreign soil, were invited guests of the society. A tribute to all serving their country was paid and their names remembered in loving and beautiful recollections.

Miss Eve Richmond, voice culturist and director of the Ladies Glee Club of the College of Wooster, sang three pieces in the usual artistic style; her voice is of that musical mellow tone quality that is so pleasing to listeners, but which is also of the powerful richness that so clearly presents the pleasing effects that captivates her listeners and makes her appearance at select gatherings so popular.

Dr. Bryan, a returned and retired medical missionary of China for many years, who was imprisoned and interned for many months and who just recently secured his freedom from the Japanese and returned to Wooster, where he will make his future home, gave a review of his incarceration and treatment and return from the Japs.—R. C. Paul, M.D., secretary.

Woman's Auxiliary News

Knox County

The members of the Woman's Auxiliary of the Knox County Medical Society held its final meeting of the year June 2 with a dinner at the Mount Vernon Country Club. Following the dinner, a short business meeting was held with Mrs. Julius Shamansky reporting for the nominating committee. Officers for the next year are: president, Mrs. George Imhoff; president-elect, Mrs. John Drake; vice president, Mrs. E. V. Ackerman; secretary-treasurer, Mrs. O. W. Rapp; program chairman, Mrs. James F. Lee. At the close of the business meeting, games were played. On Knox County history, Mrs. Pennell won the prize. Meetings for the coming year will be held the first Tuesday of each month.

At a previous business meeting the members voted to send the magazine Hygeia to the U.S.O. center at Mt. Vernon. It was also announced that Mrs. Julius Shamansky was elected director of District 10 of the Auxiliary to the Ohio State Medical Association.

CLASSIFIED ADVERTISEMENTS

Rates 50 cents per line, payable in advance. Minimum charge of \$1.00 for each insertion. Price covers the cost of remailing answers. Forms close 16th of the month preceding publication.

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not observe the results
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Do You Know - - -

The Cincinnati Academy of medicine was named residuary legatee of the estate of the late Dr. Meyer K. Amdur, formerly assistant superintendent of Longview State Hospital. All old medical books in his library of several thousand volumes were bequeathed to Dr. David Tucker, Jr., Cincinnati, the rest of the library to go to the Cincinnati Public Library. Gifts ranging from \$100 to \$500 were left to a number of employes and patients of the hospital. The value of the estate was estimated at \$36,000.

* * *

Dr. Raymond A. Vonderlehr, who recently completed eight years as assistant surgeon general of the U.S. Public Health Service in charge of the division of venereal diseases, has been appointed director of district number 6 of the U.S.P.H.S., covering Puerto Rico and the Virgin Islands.

* * *

A survey 16 years after graduation of the 132 members of the Class of 1926 of the University of Pennsylvania School of Medicine disclosed that "one-fifth of the class profess to be general practitioners, while actually three-eighths of the class practice general medicine; five-eighths of the class are specialists, and more than one-half of these have been so certified by American Boards; one-fifth of the class serve on the faculties of approved medical schools".

* * *

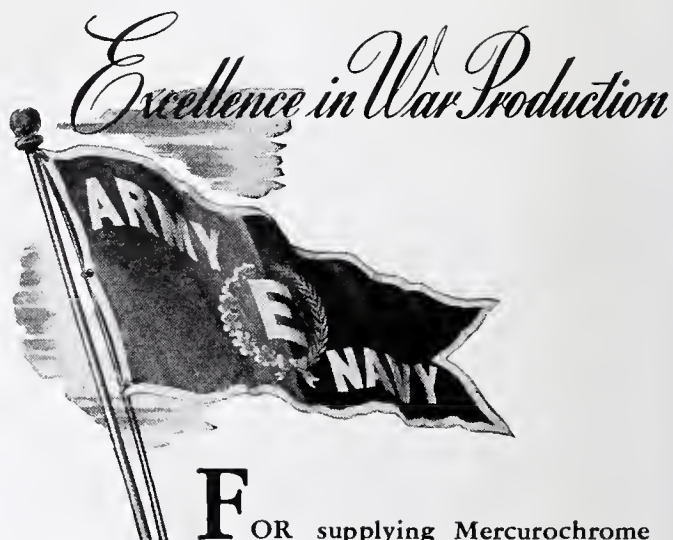
The 54th Annual Meeting of the Association of American Medical Colleges will be held in Cleveland, October 25-27, with headquarters at the Hotel Statler. Western Reserve University School of Medicine will be host.

* * *

The American-Soviet Medical Society has been founded, with temporary offices at 130 West 46th St., New York. Dr. Walter B. Cannon, professor emeritus of physiology at Harvard, is the president, and Dr. Henry E. Sigerist, director of the Institute of the History of Medicine at Johns Hopkins will edit the society's publication, known as *The American Review of Soviet Medicine*. Included among the Society's objective is publicizing the achievements of Soviet physicians and scientists.

* * *

More than one-half million subscribers to Blue Cross plans were hospitalized during the first six months of 1943. On the average (annual basis), according to *Hospitals*, there were 103 patients for every 1,000 Blue Cross participants during the period. Data reported by approximately one-fourth of the approved group hospitalization plans indicate that the average length



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After surgical interference, compensation for lack of exercise—gentle aid to tired intestinal muscles—easily gliding, painlessly motile bowel contents are requirements of importance.

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of stay of Blue Cross patients was 7.8 days during the first half of 1943.

* * *

Gerhard Hirschfield, research director of the Insurance Economics Society of America, recently estimated that the cost of the cradle-to-grave social security program advocated by the National Resources Planning Board would amount to \$15,000,000,000 yearly, including the cost of health services alone, estimated at \$3,365,000,000 annually.

* * *

According to the July issue of the *O.I.C. Monitor*, bulletin of the State Industrial Commission, there have been 1,260 silicosis claims filed by Ohio workers since silicosis became a compensable disease on July 31, 1937. The Commission has allowed 568 of these claims, disallowed 590, and 102 are pending.

* * *

Dr. Arthur T. McCormick, Louisville, Ky., aged 71, State Health Commissioner and secretary of the Kentucky State Medical Board, died August 7. He was also secretary of the State Medical Association, chairman of the Kentucky Procurement and Assignment Committee and a delegate from that state to the American Medical Association.

* * *

The American Board of Obstetrics and Gynecology has made a number of changes in its regulations designed to broaden the requirements for candidates in military service. Details can be obtained from Dr. Paul Titus, secretary of the Board, 1015 Highland Bldg., Pittsburgh (6), Pennsylvania.

* * *

Oldest resident of any state institution in Ohio is Miss Emma Kleckner. She has just passed her 100th birthday after 45 years in the Ohio Hospital for Epileptics at Gallipolis. Admitted from Georgetown, Brown County, October 26, 1898, at the age of 55, Miss Kleckner has remained continuously to establish a record for all state institutions. Admission records show she has been subject to epileptic seizures since the age of two years.

* * *

The Saginaw County Medical Society recently adopted a resolution at a special meeting recommending that the dues of the Michigan State Medical Society be increased to a maximum of \$50 per year. The present dues are \$12. It was stated that the increase would be "sufficient to provide additional facilities and services requisite to the well-being of the medical profession of Michigan which cannot be supplied on the present inadequate dues".

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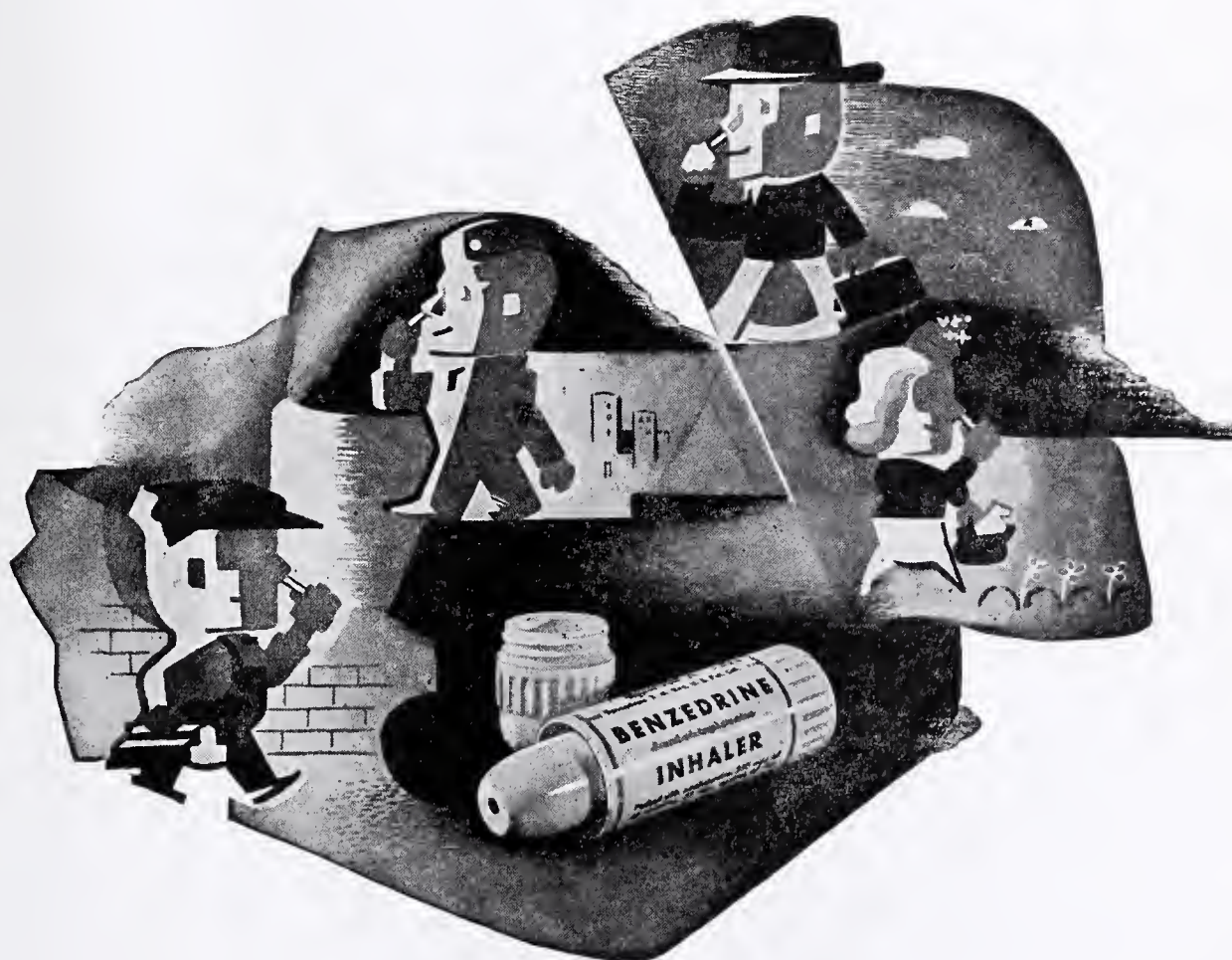


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Each Benzedrine Inhaler is packed with racemic amphetamine, S.K.F., 250 mg.; oil of lavender, 75 mg.; and menthol, 25 mg. Benzedrine is S.K.F.'s trademark, Reg. U. S. Pat. Off., for their Inhaler and their brand of racemic amphetamine.

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The Physician's Bookshelf

Micrurgical and Germ-Free Methods. Their Application to Experimental Biology and Medicine, Edited by James A. Reyniers. (\$5.00, *Charles C. Thomas, Springfield, Illinois*) presents a colloquium symposium in response to a long range program involving basic bacteriological technique for germ-free investigation started some years ago at Notre Dame. Drs. Hudson and Woolpert of Ohio State are found among the contributors.

Experiment Perilous by Margaret Carpenter (Book Club Edition. *Little, Brown and Company, Boston*) is a great mystery story involving Doctor Bailey. It is well told at a pace that keeps from pulling it down.

Victories of Army Medicine by Edgar Erskine Hume (\$3.00, *Lippincott, Philadelphia*) presents the scientific accomplishments of the Medical Department of the United States Army in a very interesting and timely manner.

Outline of Roentgen Diagnosis by Leo G. Rigler, M.D. (\$6.50, 2nd Edition. *Lippincott, Philadelphia*) is the first revision of this excellent textbook. It is designed to orient the reader in the basic principles of diagnosis by the Roentgen method.

Essentials of Syphilology by R. H. Kampmeier, M.D. (\$5.00, *Lippincott, Philadelphia*) attempts to present the concept of syphilis as a systemic disease, to develop a critical evaluation of sero-diagnosis and to stimulate better anti-syphilitic treatment.

Holt's Care and Feeding of Children revised by L. Emmett Holt, Jr., M.D. (\$2.00, 16th Edition. *D. Appleton-Century, New York City*) has been leader among popular manuals since the author's father brought it out in 1894. It still gives the mother the fundamental needs of a well child.

Convulsive Seizures by Tracy Putnam, M.D., (\$2.00, *Lippincott, Philadelphia*) is a manual for patients, their families, and friends. A well-written, authoritative manual to be used in practice.

The Neuromuscular Maturation of the Human Infant by Myrtle B. McGraw (\$2.00, *Columbia University Press, New York City*) is the summation of a series of studies which were begun more than ten years ago. It is an important book for all students of child-life. They are concerned primarily with sequential changes in specific functions, those functions being the motor activities common to the infant and young child. The primary aim has been to depict those characteristics which reflect participation of the cerebral cortex in each function.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

October, 1943

No. 10

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor*

ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Acquired Sensitivity to Injectable Liver Extracts

RALPH T. WARBURTON, M.D.*

IT was common knowledge in the early years of injectable liver, that since the product used was a crude preparation, allergic reactions such as asthma, urticaria, or serum sickness might be expected. However, many now feel that since we are using highly refined extracts, reactions need not be anticipated or feared.

A clear picture of how often it might be encountered can be seen by the report of Feinberg, Alt, and Young, who treated 48 patients with pernicious anemia during a three and one-half year period and six or 12½ per cent acquired sensitivity to the commercial liver extracts used. It is because of the supposed infrequency of reactions and relative immunity with which liver can be given that this case is reported.

CASE REPORT

R.H.G., age 48 years, operated at Mayo Clinic, November, 1940, for lymphosarcoma of stomach, at which time two-thirds of stomach was removed. Following this, patient was given a course of deep X-ray therapy over abdomen and chest, although no evidence of metastasis was found at time of operation, except a small area of invasion of serosa microscopically on lesser curvature of stomach near pylorus. Patient's state of health became poorer and he was again seen five months later, at which time he was found to have a moderate anemia, macrocytic in type. G.I. series at this time showed a normally functioning stomach outlet.

He was given liver extract (Reticulogen-Lilly) parenterally every three or four days for four injections following which he felt better. After

The Author

● Dr. Warburton, North Canton, is a graduate of Western Reserve University Medical School, 1933; member Senior Medical Staff, Aultman Hospital, Canton; Lt. M.C., U.S.N.R., U.S. Naval Dispensary, Navy Dept., Bellevue, Washington, D.C.

an interval of three weeks, liver therapy was again instituted. Ten minutes after the first injection of this second course, he developed a general feeling of warmth, swelling of lips and tongue, followed by a diffuse urticaria, with marked itching of palms of hands and soles of feet, palpitation, sense of pressure in chest, pounding in head, and asthmatic type breathing. These symptoms subsided in about one hour, leaving the patient in a state of exhaustion lasting for three or four hours.

In view of this reaction a course of investigation was attempted to determine the substance responsible for the reaction.

Since Reticulogen-Lilly has an additional 3.0 mg. of Thiamin Chloride added per cc. this was the first substance tested. Using 0.1 cc. of a 5 per cent solution intradermally a negative reaction was obtained. Next, concentrated liver extracts made by Parke, Davis and Company, and Lederle, and a crude liver extract (2 U.S.P. Units per cc.) made by Eli Lilly and Company were used as test solutions in 1 to 1000 concentration and all gave strongly positive skin reactions.

In communicating with these companies whose products were used it was found that Parke-Davis and Lilly used pork liver, while Lederle used

Submitted August 14, 1943.

*The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

beef liver as the source of their liver extract parenteral.

Thus it seemed apparent that it was not the species from which the material was obtained but rather the organ or some specific constituent of it which was the offender.

In light of the knowledge that liver is a source of several members of the B complex it was felt that these should be used as test solutions to determine the patient's sensitivity to them. A solution containing:

Thiamin Chloride.....	3.0	mg. per cc
Riboflavin	0.33	mg. per cc
Nicotinic Acid.....	10.0	mg. per cc
Pyridoxine HCl.....	1.0	mg. per cc
Pantothenic Acid.....	1.0	mg. per cc

was used but gave a negative reaction. Through the kindness of Lilly Research Laboratories the assay results on a lot of Reticulogen (Parenteral liver extract with vitamin B₁) was submitted to me which emphasizes the necessity of testing the sensitivity of the patient to several forms of the B factors. This lot, number 312765, contained in each cc.

Thiamin Chloride.....	3.000	mg.
Riboflavin	0.238	mg.
Nicotinic Acid.....	0.112	mg.
Pantothenic Acid.....	0.042	mg.
Folic Acid.....	0.0104	mg.
	(or 1457 Mg.	Units.)

There were other vitamins or growth factors but not in amounts which they felt deserved consideration.

The patient was tested with beef and pork extracts but only negative results were obtained. Also it was noted that there were no reactions elicited by the ingestion of beef or pork liver nor food of any kind.

After a period of three months with no parenteral liver and again in 12 months the patient was tested with the beef and pork liver extracts; each time there was a marked skin reaction. At the twelve month period he was given 0.2 cc. of Reticulogen in 0.8 cc. of a solution of Thiamin Chloride 50 mg. per cc. This produced a marked urticaria, nausea, and palpitation.

DISCUSSION

This reaction to parenteral liver extract occurred in an individual with no history of allergy and developed following a cessation of therapy and reinstitution as has been previously noted.^{1,2,3,6} The clinical manifestations observed consisted of most of those described by others (a) itching, erythema, urticaria.^{1,2,5,6} (b) asthma.^{1,2,3,4,6} (c) Weakness, exhaustion.^{1,2,3,6} (d) palpitation.^{1,6}

From previous immunological studies⁹ it appears that the sensitivity may be due to the anti-anemic principle itself rather than a species or organ sensitivity. However, it should be borne in mind that some preparations of liver extract parenteral are fortified with an additional factor or factors of the B complex as well as all of them containing varying amounts of B factors depending upon the state of concentration. Because of this it is felt that these B factors should be tested to complete the study in view of the reports of Thiamin Chloride sensitivity⁷ in the literature.

An attempt was made to sensitize an individual, with an allergy to spring grasses, to liver extract—refined—Lederle. He was given 1 cc. every five days for five doses, and an interval of four weeks without any followed, after which, injections were begun again. No evidence of sensitivity was observed.

CONCLUSIONS

1. A case of acquired allergy to liver extract in a non-atopic individual observed.
2. Positive reactions present 3 months and 12 months following initial reaction.
3. Sensitivity developed presented anaphlactoid picture with characteristic sensitizing dose, incubation period, shock dose and reaction involving smooth muscle.
4. An attempt to sensitize an atopic individual to liver extract was unsuccessful.
5. Suggestion that in addition to the anti-anemic principle, the B factors must be considered as allergic factors involved.

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Epileptoid and Shock Phases of the Syncope Syndrome and the Possible Role of Acetylcholine in Their Genesis

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UNTIL recently, syncope, like many other dramatic pathologic episodes, occurred rarely in the direct presence of the physician. Many significant points about it, however, have long been known to the laity and as early as we have a recorded literature, there is common knowledge of its psychogenic nature and of the susceptibility of the female to it during times of emotional stress. Within the last three years more chance has existed for the physician to be on the scene when syncope occurs and this is the case with reference not only to those subjects who may be members of the armed forces but also to large numbers of presumably healthy and physiologically sound civilians of both sexes who are now in periodic contact with members of the medical profession as a result of the extension of mass physical examination to war industry workers and voluntary blood donors. In both of these instances, the venipuncture which is usually performed for the purposes of serologic testing not infrequently results in immediate or delayed syncope.

Fainting or swooning are so commonplace and their import regarded as being so trivial, that attention would scarcely be arrested by them were it not for the fact that close observation of a large number of cases has resulted in the observation that the syndrome is actually a complex, both of whose components, the epileptoid and the shock phases, are of tremendous medical interest. When an analysis is made of the manifestations of these components of the syncope syndrome and this analysis, in turn is correlated with what little we know of the etiologic factors of idiopathic epilepsy on the one hand and of surgical shock, on the other, that which has formerly appeared to be three confused heaps of disorganized pieces of evidence, when they have been considered separately, can now be fit into a single organized and attention compelling whole. To this purpose, the *complete, idealized* picture of the syncope syndrome, as it occurs in a military recruit or a voluntary blood donor under the stimulus of the predisposing factor of emotional stress and the inciting factor or some trivial medical procedure, such as blood pressure determination or venipuncture, will be constructed:

A younger individual whose blood pressure is somewhat lower than the average for his or her

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particular standard, who would be classified as a "vagotonic" type, whose anticubital veins, when venipuncture is attempted, are found not to be supported by a rigid contiguous muscle structure but to lie in a rather loose bed of areolar tissue (i.e., they are not of the "muscular" type) who is under a considerable apprehension which a heroic or jocose effort does not mask, will suddenly (epileptoid phase) become brightly flushed over the so-called blush area (head, neck, ears and chest—the same area that blushes in response to amyl nitrite or histamine injection) with the skin over this area feeling hot and dry. Consciousness is immediately lost, occasionally with a slight cry. Respiration is arrested, the eyeballs roll upward or assume an unconjugate position with slow nystagmoid movements; the pupils are maximally dilated. The jaws clench and the extensor muscles of the neck and pectoral muscles go into tonic spasm which later becomes clonic. The subject must be prevented from biting the tongue or otherwise sustaining injury.

The rigidity during the epileptoid phase has precluded more than a cursory examination of the heart action. It has been observed, however, that the latter may be so forceful as to rock the prostrate individual from head to foot with each beat.

During the clonic stage or immediately thereafter, there may be a return of consciousness with initial disorientation. If the subject is supine during this sequence, consciousness, after initial restoration, is maintained; if the subject has been sitting up, there may be only a lucid interval and consciousness is again lost during the second phase of the syndrome.

The latter which is referred to as the "shock" phase, is ushered in by a remarkable change in the skin color; a wave of pallor spreading over the features obliterating the formerly extant blush with dramatic rapidity and becoming evident *all over the body* within a few seconds. Usually by this time (the epileptoid phase never

TABLE I

A COMPARISON OF IDIOPATHIC EPILEPSY AND THE EPILEPTOID PHASE OF THE SHOCK SYNDROME

	EPILEPSY	FIRST PHASE OF SYNCOPE
ETIOLOGY	Unknown, but psychogenic factors are always considered. Cerebral depressants such as bromides and barbiturates act prophylactically	Psychogenic
SYMPTOMATOLOGY ¹		
Warning	Aura	Presence of Aura Noticed
Onset	Sudden-always	Same
Scream	At onset	Same
Fall	Regardless of surroundings.	
Convulsion	Rigidity followed by jerking, rarely, rigidity alone	Same
Pupils	Dilated and immobile	Same
Biting	Tongue	Same
Micturition	Frequent	Occasional
Defecation	Occasional	Never observed (most patients have made toilet preparations since they are presenting themselves for examination and the colon and bladder are usually empty)
Duration	A few minutes	A few seconds to two minutes
Restraint	Used to prevent accident. Patient unconscious of restraint	Same. The point is mentioned because hysterics are also seen in army induction centers and in blood banks
Termination	Spontaneous	Usually followed by shock phase
EXPERIMENTAL	May be produced by absinthe (oil of wormwood), carbon monoxide and subjection to high pressure of oxygen. ³ The two latter substances can combine with hemoglobin and there is some evidence that choline esterase, the enzyme which prevents the accumulation of acetylcholine in the body is a heme compound ⁴ .	Epileptiform convulsions have been seen following the subcutaneous administration of epinephrine for an allergic urticaria. ⁵ The apparent paradoxical autonomic responses of mydriasis with cutaneous vaso-depression is nevertheless consistent with acetylcholine action.

lasts for more than a minute) the muscle spasms have disappeared and have been replaced by limpness; if consciousness is again gone, there may be urination. A cold sweat now begins to appear on the forehead and then becomes generalized over the entire upper surface of the body (excepting the palms of the hands) of the now thoroughly conscious and oriented but prostrated individual whose expression is anxious, who speaks slowly and faintly only if speech is provoked by questioning, who is cooperative in the acceptance of medication but makes no effort on his own initiative. He may admit malaise by a nod of the head and will state that he feels better after an interval but only if directly questioned to that effect.

The temperature is found to be depressed. The pulse is extremely slow but not necessarily weak; both systolic and diastolic components of the blood pressure are lowered markedly but the latter more so than the former so that the pulse pressure may actually be elevated; auriculo-ventricular dissociation has been noted. The pupils

are neither constricted nor dilate and though responsive to light, they react sluggishly. Not infrequently nausea is admitted or vomiting evidenced; very rarely menstrual cramps are initiated during this phase.

Gradually the pallor and weakness begin to ameliorate though there are some traces of the former for a considerable length of time; the pulse becomes more rapid; the systolic pressure rises and the pulse pressure falls. The subject is able to resume full activity in from fifteen minutes to two hours after the onset of the syndrome.

The foregoing is a composite picture; few single cases will show all or most of the manifestations recorded. Most frequently the epileptoid phase is entirely absent; very rarely does a complete shock phase fail to follow a fully developed epileptoid phase. In many instances the terminal events of the first phase overlap and mingle with those of the second; in no instance has a reversal of these phases been noted. All of the features of the idealized reactions as described,

TABLE II

COMPARISON OF INITIAL STAGE OF TRAUMATIC SHOCK WITH SHOCK PHASE OF SYNCOPE SYNDROME

INITIAL STAGE OF SHOCK	INITIAL STAGE OF SHOCK
ETIOLOGY Psychogenic. May occur without actual tissue trauma. Often delayed in onset until "stress" period is passed.	Same. Comes in "bunches" during mass examinations. May occur in anticipation of some trivial medical procedure and before its actual application.
SYMPTOMATOLOGY (1) (a) Pallor, (b) Cold Sweat, (c) Pinched face, (d) Dilated, feebly reacting pupils, (e) weak and usually rapid, often intermittent pulse, (f) rapid, shallow, irregular respiration, (g) subnormal temperature, (h) mental apathy, (i) impaired cutaneous sensation, (j) retention of urine, (k) restlessness (when from hemorrhage), (l) visible mucous membranes blanched, (m) lips, nails, tips of fingers and toes, lobes of ears, may be bluish, (n) eyes sunken and fixed with purposeless stare, (o) face without expression (neither pain nor anxiety), (p) diminished reflexes, (q) consciousness usually maintained, (r) relaxed sphincters, (s) gastric regurgitation, (t) acidosis.	(a), (b), (c), (g), (h), (l), (m), (n), (o), (q) essentially the same, (d) the pupils are sluggish in reaction but neither dilated nor constricted, unless there has been previous vigorous muscular activity, when they are definitely dilated during this stage. (That finding is felt to signify acetyl-choline utilization with a chance for adrenergic preponderance on the pupil). (e) the pulse is weak and slow (vagal) (f) there is nothing significant about the respiration. (j) may be due to failure of secretion of urine because of low blood pressure and is probably not a true retention; rather a temporary suppression. (i)*, (p), (r), not examined for (t) there is occasional alkalosis from hyperventilation, with tetany. (s) occasional.
EXPERIMENTAL Can be produced by administration of epinephrine (6) and histamine (7).	Identical symptoms are produced by acetylcholine or acetyl-beta-metyl-choline administration.

*Cholinergic drugs cause a diminution of corneal sensibility (pain receptors exclusively) in all mammals.⁵

are of importance in elucidating the underlying physiological mechanism of the syndrome. For the purposes of analysis, the epileptoid phase of the syncope syndrome is compared with the salient features of true idiopathic epilepsy (Table I) while the shock phase is similarly compared with the initial stages of surgical shock (Table II).

When the conviction became implanted that the syncope syndrome consisted of two phases and that both the epileptoid and shock portions were intrinsic to it, in spite of the apparent preponderance of either in most individual instances, an explanation was sought which would be as inclusive as possible. Because of the overtly autonomic nature of the syndrome, it was in this direction that scrutiny was turned.

Many observers have noticed the similarity between the syncope and the shock syndromes* and it is universally agreed that these repre-

sent a reaction of the autonomic nervous system. The manifestations of shock are given by those effector organs not under the direct control of the somatic nervous system (iris, heart, capillaries, sudoriferous glands, sphincters). If there is excluded from consideration for the moment, the convulsive contraction of certain voluntary muscle groups during the epileptoid stage of the syncope syndrome, the same features of autonomic nervous system imbalance apply equally well to the latter. As a matter of fact, even the convulsive contraction of somatically innervated muscle groups may be thought of as an autonomic phenomenon since it may be produced by cholinergic substances (e.g., acetylcholine,¹⁶ insulin, cyanamide, esserine). Now, the motor activity of the autonomic nervous system is mediated by chemical hormones and this fact has led to the proposal of two distinct, though not necessarily uncomplementary theories as to the hormonal nature of shock.

1. The adrenergic theory⁶ finds its basis in the fact that the administration of epinephrine may precipitate shock in humans, and its support in that the striking pallor evinced in shock, due to marked peripheral arteriolar constriction, is an adrenergic phenomenon. For this reason, the administration of epinephrine and other sympa-

*In the comparison (Table II) it must be remembered that the picture of shock is frequently distorted by the superimposition of the concomitant manifestations of trauma, tissue destruction or hemorrhage, whose attendant disturbances apart from their contribution to the genesis of shock, serve to aggravate the basic physiologic changes of the uncomplicated syndrome and to institute the pathologic vicious circle of "irreversible" shock. Such changes as anoxemia, anoxia, loss of capillary impermeability with intercellular exudation, and circulatory failure, are to be considered sequelae rather than an integral part of the shock syndrome.

theticomimetic drugs, as stimulants for the treatment of shock, is discountenanced. For the sake of brevity and not in complete fairness to the arguments proposed for this theory, it may be stated that the epinephrine secretion theory is incomplete in that it does not account for the rather *generalized* diaphoresis and the vagal heart action seen in the prodromal stages of traumatic shock. Both of these responses are parasympatheticomimetic. The theory, furthermore, does not explain why people or animals do not go into shock when they are "fighting mad". They seldom go into syncope in such a situation, either.

2. Histamine, on parental administration to humans, likewise causes a type of shock, mainly with cholinergic manifestations. In the shock that accompanies or follows physical trauma, histamine, a protein conjugate constituent of all tissues is supposed to be liberated systematically with their disorganization. As in the case of the epinephrine secretion theory, that which postulates the liberation of histamine has certain drawbacks. Neither the glandular secretory phenomena nor the cerebral manifestation of histamine intoxication are present at any stage of shock. Histamine and epinephrine are pharmacologically antagonistic so that the skin pallor remains unexplained. Again, in fairness, it must be stated that by making certain assumptions as to preferred sites of the two antagonists, it is possible to construct a theory which explains the manifestations of shock, but not its genesis, in that shock may have its inception after the most minimal physical trauma, from whose site the liberation of any but an inappreciable amount of histamine would be an improbability.

Such objections as have been cited are not, however, the main difficulties with the theories of the autonomic engenderment of shock and of syncope, but rather they lay in the disparity of the responses noted for the typical complete syncope picture detailed in which there appears no harmony such as would result from a definite preponderance of either system which the nature of the autonomic balance would mandate. Rather there is a discordant welter of seemingly contradictory and irreconcilable responses, predicating the actions of both systems simultaneously, e.g., pallor (sympathetic stimulation) with generalized diaphoresis (parasympathetic stimulation), mydriasis (parasympathetic paralysis) with vasomotor flushing (sympathetic paralysis). Certainly, were a single hormonal instigation of these diverse effectations to suffice, it could be neither histamine nor epinephrine, nor their combination. And these difficulties with both the histamine and epinephrine theories are enhanced by the incorporation, from a clinical standpoint, of the epileptoid precursor to the shock phase of the

syncope syndrome, particularly if, as is maintained, the latter phase is identical with surgical traumatic shock.

Both the epinephrine and histamine theories of shock have had their inception in the fact that the parenteral administration of either of these substances will result in a condition comparable to shock in the human. Both are physiologically occurring substances. With these two facts before us, it is curious that little attention has been paid to the possible role of the cholinergic hormone in the genesis of the syncope syndrome. (It has been brought forth as being responsible for anaphylactic shock⁸ but this point is controversial.⁹) It may be stated that the biphasic nature of the syncope syndrome is an excellent piece of evidence for the hypothesis that the *syndrome is a reaction to generalized systemic acetylcholine intoxication*. Our attention was first attracted to this hypothesis by recent experimental work on the induction of amblyopia and epileptiform convulsions in man subjected to high pressure of oxygen³. There was some basis for regarding high tensions of oxygen as a synergist to acetylcholine because it is believed that certain hemoglobin-like compounds make up the choline-esterase systems which are responsible for the destruction of this hormone in the body. It had been found that cyanamide, when administered to laboratory animals would cause a profound shock and in this case it is known that cyanamide is cholinergic by virtue of its ability to combine with and inactivate the choline-esterase heme compounds of the organism.^{5*}

Acetylcholine is the chemical mediator which operates at all somatic myoneural junctions, at all splanchnic ganglia and at the effector junctions of the craniosacral autonomies. From Table III, it may be seen that the systemic liberation of acetylcholine within the organism, in quantities exceeding the amount that can be handled rapidly by the agency for its normal destruction, the choline esterase, will stimulate both the somatic motor organs and the parasympathetically innervated organs, directly, as well as the sympathetically innervated motor end organs indirectly, by action upon the ganglia of the latter, and in the latter case, with the liberation of adrenalin. Since the liberation of the latter is not necessarily generalized, as required by the epinephrine theory of the origin of shock, but is restricted to the sympathetically innervated terminal motor organs, we have the unusual but still physiologic occurrence of the simultaneous stimulation of both divisions of the splanchnic motor systems. And this is the only

*The epilepsy produced by pyrrol² may likewise be a cholinergic phenomenon since pyrrol coordinates with heme compounds.

TABLE III
THE EFFECT OF ACETYLCHOLINE ON THE AUTONOMIC EFFECTOR ORGANS
(Modified from Goodman and Gilman)¹⁵

Effector Organ	Indirect Stimulation Through Adrenergesis	Direct Stimulation Through Cholinergesis
Iris	Mydriasis (a)	Miosis
Heart		
Rate	Accelerated (a?)	Slowed (b)
Output	Increased	Decreased (b)
Rhythm	Ventricular Extrasystoles, Tachycardia, Fibrillation.	Bradycardia, A-V block, Vagal Arrest (b)
Skin		
Blood Vessels	Constricted (b)	Dilated (a)
Sweat Glands	Restricted Secretion (?)	Generalized Secretion (b)
Temperature	Depressed	Elevated (a)
Intestinal		
Motility	Decreased	Increased
Sphincters	Contracted as a Rule	Relaxed
Urinary Bladder		
Detrusor	Relaxed	Contracted (a)
Trigone and Sphincter	Contracted	Relaxed (a)
Adrenal Medulla		Secretion of Epinephrine (a & b)

(a) Manifestations during epileptoid phase.
(b) Manifestations during shock phase of syncope syndrome.

uncomplicated mechanism that can be invoked to explain all the splanchnic manifestations of both phases of the syncope syndrome. But better still, it likewise explains the somatic manifestations of both phases. In those instances where the muscular spasms are confined to the extrinsic ocular muscles during the epileptoid phase, a direct action of acetylcholine is sufficient, for these are unique among the somatic muscles in their susceptibility to cholinergics. The loss of consciousness during the shock stage can still best be explained on the basis of vagotonic cerebral anemia, as in the case of syncope of carotid sinus syndrome. That during the epileptoid phase *may* be the result of the tremendous rise in intracranial pressure found in laboratory animals and in humans to which acetylcholine or its homologues have been administered systematically.¹⁰

It is the latter group of experiments that furnishes, at the present time, the strongest argument for the acetylcholine intoxication nature of the syncope syndrome. The studies of Ellis and Weiss on acetylcholine administration¹⁰ and those of Myerson, Lowman and Dameshek¹¹ on acetyl-beta-methyl choline show a complete accordance of the symptoms produced with those manifested during syncope syndrome. It is only in the latter study that syncope is mentioned (and then incidentally) as following the administration of acetyl-beta-methyl choline, but by the charts of Starr, Elson, Reisinger and Richards¹² it is obvious from the sharp drop in blood pressure re-

corded, syncope would certainly be inevitable in a susceptible individual. Convulsant doses of acetylcholine in humans causes vegal cardiac arrest. (Harris and Pacella¹⁷).

There are two questions which are immediately posed. What is the source of the systemically disseminated acetylcholine in the syncope subject? and can it be detected in the blood of these subjects? The answers to these questions, the latter in the affirmative, would complete the evidence for the correctness of the hypothesis advanced. Unfortunately they are not as yet forthcoming. There is the suggestion that acetylcholine may be liberated by the brain, for stimulation of the hypothalamus is followed by the appearance of the chemical in the cerebral venous blood¹³. The valid answer to the second question is hampered by experimental difficulties in its estimation. The blood contains choline esterase, the natural agency for the destruction of acetylcholine, and, ironically enough, the amount of choline esterase in the blood rises considerably during periods of emotional stress (Richter¹⁴). This fact, while it may be considered as a protective mechanism and thus in support of the hypothesis, may effectively preclude its proof in this direction.

SUMMARY AND CONCLUSION

Observations on a large number of individuals developing syncope after trivial medical procedures, indicate that the complete syndrome is made up of two phases; an initial one resembling

idiopathic epilepsy and a terminal one resembling traumatic shock.

The syncope syndrome in both its splanchnic and somatic manifestations may be explained on the basis of acetylcholine intoxication and a hypothesis relating psychogenic syncope to the excessive systemic liberation of acetylcholine, is presented.

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Cardiac Enlargement

Enlargement of the heart, the result of hypertrophy or dilatation or both, indicates heart disease whenever it is sufficient to be detected by physical examination. The most reliable evidence of hypertrophy is the position of the cardiac apex. When this is outside the midclavicular line to the left one can feel certain that the heart is enlarged unless there are thoracic pathologic conditions which cause displacement. The fundamental stimulus to the production of hypertrophy is the cardiac dilatation which results from strain, as from overwork caused by a stenotic valve or by hypertension. When heart muscle cells become enlarged the capillary distribution to them is proportionately less and the speed of oxygen diffusion to them is diminished. Under such circumstances more time is required for recovery of the heart muscle cells after systole, consequently such hearts must beat slowly or failure will ensue more or less rapidly.—Clifton B. Leech, M.D., Newport; *R. I. Med. Jour.*, Vol. XXVI, No. 9, September, 1943.

Limitations of Tetanus Toxoid

The demonstration of an effective titer of antitoxin after inoculation with antigen or toxoid is not a certain guarantee of immunity. Several factors are concerned in the determination of effective resistance. There is the local factor which may successfully repel the invader at the source. Also actively engaged in this combat against the invading organism are the cellular and tissue elements. Another agent, but far from the only factor in the battle for immunity, is the antibodies in the blood. All these and other factors play their essential role in the achievement of immunity. It is of more than passing interest that antitoxic immunity does not necessarily follow the recovery from an attack of clinical tetanus. Since all these factors, and perhaps others, play essential roles in the attainment of immunity, we cannot assume that complete immunity is predicated upon a given level of antitoxin in the blood.

Recent military experiences with tetanus in the British Army lend support to this immunologic thesis. In the British Army the practice has been to inoculate the soldiers with two doses of 1 cc. of tetanus toxoid at six-week intervals. Only recently has a boosting dose been given six months later, a vital step in the proper elevation of the level of tetanus antitoxin in the blood. Though the tetanus bacillus is not indigenous to the soil of the Near East, nevertheless clinical tetanus has occurred in men presumably actively immunized, with resulting fatalities. Analyses of these failures would seem to indicate that they were due for the most part to the breakdown of the local factor, for large masses of necrotic tissue played the role of culture medium instead of preventing invasion. A minor role may have been played in some instances by an insufficient level of blood antitoxin due to the lack of a boosting dose shortly before the battle was joined.

The implications of such experiences are plain. The delusion must not be harbored that toxoid injections mean semi-permanent immunity at all events. A boosting dose should be administered shortly before the soldier enters the battle line. Careful and complete surgical removal of all dead tissue should be performed at the earliest possible moment. If this is impossible of achievement, tetanus antitoxin may be indicated in spite of the presence of active immunity, which is normally sufficient but is insufficient in the wake of excessive proliferation of tetanus bacilli in large areas of necrotic tissue. By such precautions the already greatly lowered incidence of tetanus may be further reduced to the vanishing point.—Editorial, *N. Y. Jour. of Med.*, Vol. 43, No. 17, September 1, 1943.

Psychological Factors in Bilateral Prefrontal Lobotomy

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THE purpose of this paper is essentially one of presenting certain observations relating to a series of 20 psychotic patients who were subjected to therapeutic neurosurgical transection of the prefrontal association areas. While no more controversial issue exists in psychopathology than that of the use of brain surgery in patients presenting an intact brain, the past decade has seen an increasing utilization of radical therapy in the major psychoses. This trend has been expressed in insulin-shock, in metrazol-convulsion, in electro-shock, and now, in prefrontal lobotomy. Historically, bilateral lobotomy may be traced, as a controlled technique, to the work of Egas Moniz¹ whose first operations in 1935 were based, in part, on the primate studies of Franz, Bianchi, Lashley, Jacobsen, and others, and upon the clinical observations made on cases presenting accidental brain lesions and cerebral neoplasms. In America, therapeutic neurosurgery has been limited, thus far, to a relatively small number of medical and psychiatric centers, including the Columbus State Hospital where the research here reported was carried out from September, 1941, to September, 1942.

Our operative series, consisting of ten men and ten women with an age range from 20 to 65 years, was made up for the most part of patients presenting severe psychotic and psychoneurotic symptomatology of long-standing and singular resistance to more conservative methods of treatment. The series included schizophrenics, involutional melancholics, psychoneurotics, and one case of mental deficiency with psychosis. In every instance, the patient had been subjected previously to other forms of therapy, and had either shown no improvement or had relapsed after initial post-therapeutic remission. Clinically, the prognoses ranged from poor to extremely bad. Our operations were performed following the method described by Freeman and Watts.² In cooperative patients, local anesthesia was used, although it occasionally became necessary to resort to a general anesthetic in those instances where resistive, negativistic and hyperactive behavior had to be dealt with.

The bilateral skin incisions were made approximately six centimeters above the zygoma and anterior to the anterior tips of the ventricles. Upon the insertion of selfretaining retractors,

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the skull was trephined with the aid of a Hudson drill. Upon exposure, the membranous coverings of the brain were opened. While particular care was exercised in the selection of an avascular area, it was sometimes necessary to control bleeding by means of the electro-coagulator. With the cortex exposed, the cutting instrument was introduced into the brain tissue to a depth of approximately five centimeters and the sectioning was carried out. Following the bilateral lobotomy, the wounds were closed with interrupted silk, aponeurosis and skin. Ordinarily, little postoperative shock is to be expected and a minimum amount of care is required.

OPERATIVE COMPLICATIONS

After four or five days, the patient is able to be up on the ward. Operative complications, excluding those of anesthetic origin, may take the form of unexpected subdural hematomas and hydromas, cystic formations, abnormal brain topography, or, more seriously, hemorrhages of varying degrees of severity. Such complications, however, are relatively uncommon, and are not of primary concern at the moment. More significant, for our purposes, are the behavioral modifications which accompany frontal transection. It was for the purpose of analyzing and evaluating these behavioral changes that the research here reported was undertaken. In view of the limited case material, and the early stage of our work, it was decided that an intensive qualitative study would be the most satisfactory approach to the problem. It was imperative, therefore, that each of our patients be subjected to as wide a sampling of behavior as possible, both pre-operatively and post-operatively.

A consideration of our problem indicated that there were two distinct factors which had to be taken into consideration. First, there was the

*Neurosurgery in cases mentioned was performed by Dr. Harry LeFever and Dr. Roy Secrest, Columbus, Ohio.

problem of immediate changes in behavior independent of therapeutic implications. Many patients evidence some type of immediate post-operative behavioral change. The question arises as to the reasons for these changes. Are they functions of the total operative situation or are they, indeed, related to the sectioning of the cortico-thalamic fibers? If we can agree that certain of the changes are the direct result of the lobotomy, then we might further seek to discover whether there is a significant relation existing between the particular kinds of postoperative behavior and the critical plane of section chosen during the operation. In this first approach to the problem of lobotomy, we are further interested in testing certain hypotheses which have been advanced concerning the function of the frontal lobes in the organization of total behavior patterns.

SELECTION OF CASES FOR OPERATION

The second principal approach to lobotomy is found in the therapeutic implications of the method. Here we find ourselves faced with a variety of problems. A question of primary importance has to do with the selection of cases for operation. Which patients are most likely to respond satisfactorily? What is the relation of a therapeutically successful lobotomy to the age, sex, diagnosis, duration of psychosis, prognosis and attitude of the patient? The present tendency to select psychotics of long standing and those who have resisted other forms of therapeutic intrusion, is neither an outgrowth of research nor experimentation, but is founded on certain emotional and ethical considerations. The need, here, for careful study is only too apparent. Another problem is related to the post-operative course of the patient. Which behavioral signs are correlated with a favorable prognosis and which signs point to an unfavorable prognosis? Is the postoperative period of confusion essential to improvement and recovery? Is there, in fact, a typical course that is independent of the pre-operative personality organization of the patient? Finally, what are the long range personality alterations in those cases which are therapeutically successful? The present study cannot hope to answer all of these questions. At best, we can indicate certain preliminary observations which were made during 12 months of clinical observation and psychological examination.

It was seen, early in our work, that a general plan of testing and evaluation would be impossible. Each patient presented a unique clinical picture with a different degree of willingness and ability to cooperate. A careful consideration of the problem resulted in the development of a plan by which our patients were subjected to a

progression of evaluation techniques, starting with an intensive routine of incidental observation, and passing through the level of motor integration, perceptual-motor integration, perceptual-meaning relationships, and culminating with an analysis of abstract and categorical behavior. This general plan was supplemented, whenever possible, by as wide a variety of psychological techniques as could be marshalled within the limitations set by time, material and personnel.

When permission for lobotomy was granted by the relatives of a patient, the program of incidental observation was immediately instituted. Arrangements were made for the patient to be observed frequently throughout the day. This program was facilitated through the cooperation of staff physicians, nurses, attendants, and assistants, who made prolonged observations and who reported speech and other behavior modes in great detail. To carry this plan a step farther, we utilized motion picture cameras and electric sound recordings whenever possible. The films were particularly useful in recording facial expression, posture, body movement, and other types of behavior which usually defy accurate notation. The sound recording permitted us to sample speech behavior at frequent intervals. A more detailed discussion of our use of psychological tests, and our analyses of neurological and behavioral factors involved in lobotomy, will be found in another place.^{3,4,5} We are concerned here with some of the more general aspects of intracerebral therapy.

FACTORS INFLUENCING POST-LOBOTOMY COURSE

In following our cases, we were impressed with the fact that there are at least six primary factors influencing the postlobotomy course. The first of these factors concerns the affective-emotional life of the patient. One of the most frequent behavioral modifications relates to a canalization of the emotional flux. We have found that it is relatively unimportant whether there is a decrease or an increase in emotional responsiveness. The essential point is that there is a redistribution of emotional energy along lines permitting more adequate social adjustment.

A second factor, observed in this series of cases, is the rather pronounced alteration in attitude. Freeman and Watts have spoken of this change as an alteration in the consciousness of self. For reasons of simplicity we prefer to speak of modifications in attitudes. We are dealing, however, with the same general aspect of behavior. While these modifications of attitude are highly complex, and very poorly understood, they constitute the most important objective signs of post-operative

change. Unfortunately, the diffuse character of these changes makes it extremely difficult to factor out the precise mechanism by means of which the changes are brought about. More promising, in this direction, is the factor of orientative dysfunction. While our cases have shown, from time to time, disturbances in all areas of orientation, the only consistent change is that related to the time-schema. Temporal disorientation might be said to be the most typical symptom of the postlobotomy patient. Some of the significance is lost, however, when we realize that this symptom is also characteristic of most patients showing cerebral neoplasms or accidental brain lesions. A fourth factor molding the postoperative picture is the reorganization of the organic substrate. This reorganization is reflected at the behavioral level, in the diminution or disappearance of tension and anxiety. Again, the mechanism by which this change is brought about is not clear. It would seem, however, that the problem here is a neurodynamic one and is bound up with the homeostatic mechanisms.

The final two factors which the data of our cases forces upon us, are negative in that it is a lack, rather than presence, which is of interest to us. We have had it forcibly brought to our attention that the postlobotomy patient shows little, if any, intellectual deterioration, with the possible exception of disturbance of the abstract and categorical functions. Similarly, neurological findings have been vague and inconsistent. It is true that somnolence, increased appetite, and restlessness are likely to be present following the operation, but these signs are of a transient nature.

These factors, both positive and negative, form the core of postlobotomy symptomatology. Other characteristics have been observed, from time to time, during the postoperative course, but their occurrence has not been frequent enough to have significant effect on the total behavior picture. Upon certain points, there has been a high degree of concurrence in the several investigations reported thus far. Upon other points, there has been considerable disagreement. A vast amount of work remains to be done in this field before we can hope to have a clear understanding of even the more elementary phases of lobotomy. It is possible, however, to establish certain broad lines of interpretation.

EFFECTS OF LOBOTOMY

In considering the effects of the lobotomy, there appears to be at least three possible explanations to account for the observed changes. First, it is possible that the neurosurgical interruption of the anterior thalamo-cortical projection actually causes a reorganization of basic

personality patterns as a correlate of the disruption of the underlying brain fields. The second possibility is essentially psychological in that the observed postoperative alterations may be considered a function of the suggestion factors surrounding the operation. Finally, the modifications of behavior may be a result of secondary organic factors such as accompanying cerebral edema, surgical shock, anesthetic reaction, etc. Considering the first possibility in the light of our knowledge of cerebral architectonics, we know that the sweep of the cutting instrument during lobotomy, severs the important neural pathways connecting the prefrontal association areas with the diencephalic complex. The work of Walker⁶ and others, has shown that the thalamic projections to the frontal lobes originate in the pars parvicellularis of the nucleus medialis dorsalis, the anteromedial nucleus and the nucleus ventralis lateralis.

HISTOPATHOLOGICAL STUDIES

Following lobotomy, histopathological studies have revealed a certain amount of cellular degeneration back to the medial thalamic nuclei, with occasional partial lobar atrophy of the frontal poles. It is not surprising, in the light of these findings, that the operation is followed by profound neurodynamic reorganization which is reflected psychodynamically in modification of the overt behavior of the patient. The reorganization of the neurodynamic substrate is brought about by the disruption of the neural chain consisting of the prefrontal association areas, the diencephalon, and the cerebello-pontine centers. The entire organism is brought under the influence of the reorganization through the intermediate of superior pathways connecting the thalamus with the corpus striatum, and of inferior pathways (spino-thalamic tract) connecting the thalamus with the lower spinal centers. The repercussions of the reorganization of patterns involving the striate body are, of course, to be looked for in alterations of the basic postural model. This re-focusing of motoric identification has its counter-part, at the psychological level, in the change in attitude and general behavior of the postlobotomy patient.

The second possible explanation of postlobotomy behavioral change is found at the psychological level. Brain surgery has always been considered a dramatic procedure. Consider then the possible reaction of the mental patient to the ritual surrounding the operation. It is conceivable that a patient might be profoundly influenced by the mere knowledge that a brain operation has been performed. It is only a step to the assumption that if the brain has been operated upon, the personality must be altered. We have

all seen mental patients who think in these terms. The cause and effect relationship is overwhelming to them. It is no secret that therapeutic effect is often obtained not so much by the absolute qualities of the therapy, as by the attitude of the patient towards the therapy. This is true for psychotherapy, chemotherapy, physiotherapy and we might well expect it to be true in surgical therapy.

Thus far, there are no recorded instances of control subjects used along with the regular lobotomy cases. It would be highly desirable to set up a control situation by putting a series of patients through the usual preoperative ritual and perhaps going so far as to make the incision, locate the coronal suture, and place a burr hole for a landmark in case a future lobotomy seemed desirable. While the postoperative picture is characterized by certain types of behavior which strongly indicate that more than mere psychological factors are at work, it would seem desirable to check the point at an early date. There are, however, strong arguments against the importance of suggestion in prefrontal lobotomy. One is the fact that in some cases the important changes do not make an appearance until after a second operation. If the effects of the operation were due largely to suggestion, we would expect to find the changes following the first operation. More important, if suggestion were the sole mechanism at work, how are we to account for the delayed responses to treatment? In many cases, there is a considerable period between the operation and the first signs of improvement. We would expect the influence of suggestion to make itself felt soon after the operation. It would be unwise, however, to ignore completely the role of suggestion as a contributing factor in the therapeutic effects of intracerebral therapy.

SECONDARY CEREBRAL ALTERATION

The third interpretative possibility, that of secondary cerebral alteration in the form of edema, neuronc trauma, shock, anesthetic reaction, and similar conditions, can be dismissed as a major factor in the therapeutic changes which occur, but must be taken into consideration in interpreting immediate postoperative behavior. The disorientation, memory loss, neurological symptomatology, and certain related behavior, are doubtlessly a function, in part, at least, of these secondary organic operative factors.

With reference to therapy, the question has been raised as to whether the results obtained by bilateral prefrontal lobotomy justify the continued use of the method. Our answer at this time would be categorically affirmative. While not every patient improved, none was made

worse by the interruption of the thalamo-cortical projections. On the other hand, varying degrees of improvement were noted in a number of instances. Considering the fact that the patients in our series represented a highly selected group of psychotics in whom the prognoses were extremely poor, the results have been particularly gratifying. Ten of our twenty patients responded with some degree of improvement and, of these, seven have been released from the hospital and are making a very satisfactory domestic and occupational adjustment. The three patients who have not been granted trial visit status, have improved within the hospital environment and have become relatively cooperative and tractable.

SUMMARY

The present discussion has dealt with the postoperative behavior of a series of 20 psychotic patients who were subjected to bilateral prefrontal lobotomy. Detailed observational notes were kept on each patient for periods ranging from one to twelve months. During the period of observation, a broad program of psychological testing was undertaken, covering the areas of abstract and categorical behavior, perceptual-motor organization, perceptual-meaning relationships, and other specific aspects of total personality organization. The factual data, both at the quantitative and qualitative levels, were analyzed with the object of illuminating the bipartite problem of the psychoneurological dynamics of brain activity and the therapeutic value of neurosurgical transection of the frontal brain areas. Beneficial results were observed in 50 per cent of the cases, with behavioral adjustment never being worse in the postoperative period than it was pre-operatively. The essential factors in readjustment were found to be related to emotional re-canalization, orientative dysfunction, attitudinal modifications, reorganization of underlying organic patterns, and negatively, to the absence of essential intellectual and neurological changes.

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Ligation of the Inferior Vena Cava—Case Report

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THROMBOSIS of the inferior vena cava carries a grave prognosis. Pulmonary embolism or progression of the thrombotic process with occlusion of the renal veins are fatal complications. Both can be prevented by ligating the vena cava proximal to the thrombus.

The possibility of ligating the inferior vena cava with recovery of the patient has been previously demonstrated. Collins, Jones, and Nelson have recently reported¹ a series of cases in which inferior vena caval ligation was successfully performed during the course of severe pelvic thrombophlebitis to control an associated septicemia from repeated showers of infected emboli.

CASE REPORT

A.G., No. 246317, was first admitted to the surgical service of Cleveland City Hospital August 30, 1942.

For the past month the right foot had been swollen, discolored, and painful. Three weeks prior to admission a painful ulcer had appeared on the dorsum of the foot.

The pertinent physical findings at the time of the initial admission were as follows. White male, age 62. The eye grounds showed arteriosclerotic changes. The lungs were emphysematous. The heart was not enlarged and the sounds were not distorted. The blood pressure was 138/78. The pulse was 80, regular, and rhythmic. The urine was negative for albumin and sugar. The Kline test for syphilis was negative. Blood chemistry was normal including a fasting sugar level of 126. Hemoglobin was 85 per cent and leucocytes numbered 9000.

The right foot was rubrous and edematous. There was an exquisitely painful gangrenous ulcer measuring four by six centimetres on the dorsum of the foot. Pulsation was not palpable in the right femoral, popliteal dorsalis pedis, or posterior tibial arteries. Oscillometric readings taken at the level of the lower thigh and leg were zero. During the ensuing five weeks of hospital observation the gangrenous process continued to advance and it was deemed advisable to sacrifice the limb. On October 8, 1942, the right lower extremity was amputated through the mid-portion of the thigh. The postoperative course was smooth and he was discharged October 24, 1942, with an apparently well healed stump. Pathological examination of the amputated specimen revealed generalized arteriosclerosis with ischemic ulceration and necrosis.

He was readmitted to the surgical service of Cleveland Hospital January 26, 1943. At the time of this second admission he stated that he had been well for three weeks following the initial discharge. He then noticed the beginning of a blue-red discoloration at the inner side of his stump. Shortly thereafter the stump began

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to swell and pain. The swelling, discoloration, and pain became progressively more pronounced. The stump began to ulcerate. About two weeks before admission the left foot began to swell. The swelling progressed until the entire left lower extremity was involved. At the same time the veins on the front of the abdomen started to enlarge.

Examination: Rectal temperature was 37.8 and the absence of a generalized reaction to the distal thrombotic process was noticeable. The amputation stump was diffusely edematous. The inner portion of the stump was tender, indurated, cyanotic, and presented a large foul smelling ulcer with a necrotic base. The entire left lower extremity was enormously enlarged. It was tensely edematous from toes to groin. On both sides of the anterior abdominal wall the superficial veins were prominently dilated and tortuous and extended from each inguinal region up to the corresponding costal margin. A venogram failed to visualize any of the deep veins in the extremity of the pelvis and showed extensive retrograde collateral flow through the various tributaries of the saphenous bulb.

The entire picture was typical of and consistent with an acute thrombotic occlusion of the inferior vena cava. The thrombotic process had apparently originated in the amputation stump probably as the result of hemorrhage. The thrombotic process had then progressed slowly but steadily to involve the femoral vein, the entire iliac vein and finally the inferior vena cava. Further extension of the thrombus within the inferior vena cava would occlude the orifices of the renal veins; while the apparent absence of a local phlebitic reaction, which would tend to fix the thrombus in situ, rendered the danger of pulmonary embolism particularly acute. Accordingly, it was felt that despite the risks inherent in an operation of this magnitude, ligation of the inferior vena cava proximal to the thrombus would afford the patient the best chance of recovery.

Operation: Performed February 1, 1943, under spinal anesthesia. Through a hockey stick type of incision the right kidney was exposed. The last rib including the articulation with the corresponding transverse process was resected. The diaphragm was retracted upwards. The kidney was displaced from its bed to expose the renal vein. This vein was followed inwards until its junction with the inferior vena cava came into

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view. An interesting condition was revealed. The vena cava proximal to the entrance of the renal vein was distended with blood, while the cava distal to the point of entrance of the renal vein was collapsed, indicating a distal occlusion. No attempt was made to expose the thrombosed portion of the cava. A length of umbilical tape was slipped around the collapsed cava and tied just distal to the point of entrance of the right renal vein. Two mishaps occurred during the operation. In resecting the last rib the pleura was nicked, and in dissecting the vena cava from its bed a distended lumbar vein was torn. The opened pleura was closed with a suture and bleeding from the injured lumbar vein was controlled before the wound was closed.

The patient had a stormy convalescence complicated by a severe pneumonia. Recovery ensued, however, and two months later the sloughing ulcer was excised from the stump leaving a clean granulating ulcer (Figure 1) which was subsequently grafted.

Probably the most interesting and significant aspect of this case was the immediate effect of the ligation on the massive edema of the left lower extremity. Within 24 hours of ligation

vein just distal to the entrance of the great saphenous vein neither produces nor increases peripheral edema. On the contrary, it has been repeatedly observed that swelling may subside with amazing rapidity following proximal ligation of a thrombosed major vein. The painful



FIGURE 2

Left lower extremity four months following ligation of inferior vena cava. Note absence of edema.



FIGURE 1

Granulating surface preparatory to skin grafting. Condition of amputation stump four months after ligation of inferior vena cava and one month following excision of infected ulcer.

the swelling of the left lower extremity began to subside. Within three days all swelling had disappeared with the exception of the ankle and foot. Two months after operation, the limb was free of edema. See Figure 2.

Within recent years significant progress has been made in the prophylaxis of pulmonary embolism in case of thrombophlebitis of the lower extremity by ligating the femoral vein. Homans,² Fine and Sears,³ and Welch and Faxon⁴ have pioneered in the work. The more general acceptance of the surgical prophylaxis of pulmonary embolism has been deterred by reluctance on the part of the profession to accept the now well established fact that the femoral vein can be safely ligated. Ligation of the femoral

phlebitis which may accompany the thrombotic process is also favorably influenced. One of the most significant features of the reported case is the disappearance of massive edema of a lower extremity following ligation of a thrombosed inferior vena cava.

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Hodgkin's Disease in Dermatologic and General Practice

The lymphoblastomas are tumors involving the hemopoietic lymphoid, and reticular systems.

This group is usually spoken of as the white blood dyscrasias. The cause of the various members of the lymphoblastoma group is that of malignant growths in general and is unknown.

It remains for those who defend the theory of infectious etiology to demonstrate transmission of an infectious agent. This group of diseases is still rather confusing. The clinical picture of leukemia and mycosis fungoides together with blood studies will usually yield a diagnosis.

The diagnosis of Hodgkin's disease and lymphosarcoma can seldom if ever be made without a gland biopsy, and even then it may be difficult to differentiate them.—George J. Busman, M.D. and John M. Johnston, M.D., Pittsburgh; Penna. Med. Jour., Vol. 46, No. 11, August, 1943.

Two Cases of Brenner Tumor: One of Unusual Size

PHILIP J. REEL, M.D., and PAUL C. FOSTER, Ph.D., M.D.,

RECENTLY two ovarian tumors of the Brenner type were encountered which deserve reporting because one was of unusual size. The majority of these tumors are small and usually unsuspected, being discovered incidentally at laparotomy or postmortem. One of our tumors greatly exceeds in size any we have seen reported except the one weighing 15 pounds recorded by Nieman,¹ the other was small, being discovered incidentally in a pathological specimen.

This type of tumor first recognized as a definite entity by Brenner was designated as oophoroma folliculare.² Later reinvestigated by R. Meyer³ the tumor was found to be of nongerminal origin. Two distinct types were recognized: Group A, the solid form, with small or medium sized cysts containing Brenner epithelium only, arranged in small nests between large amounts of fibrillary connective tissue and rarely containing pseudo-mucinous epithelium. On the other extreme are the Group B tumors. These are pseudo-mucinous cystomata with small solid fibrous tumors containing typical Brenner cells. According to Meyer, Brenner cells do not arise from ovarian parenchyma, but from the remains of celomic epithelial cells originating near the wolffian body from which the müllerian ducts are derived. Cells of a similar origin are frequently encountered on the surface and in the cortex of the ovary. These are the so-called Walthard cell nests. American papers giving a more comprehensive review of the subject include those of Novak and Gray,⁴ and Proescher and Rosasco.⁵

Brenner tumors are of little clinical importance because they rarely reach a size sufficient to cause symptoms, since the cells are undifferentiated sexually they produce no endocrine disturbances, and as far as is known are never malignant. They usually occur late in life, are usually unilateral, and they constitute only a small portion of ovarian tumors. Rohdenburgh⁶ saw only one in 500 ovarian tumors examined. Their usual small size, however, allows them to pass unnoticed even with careful scrutiny of pathological specimens, so they probably are more common than indicated. Furthermore, as pointed out below, a certain number of them are no doubt mistaken for fibromata and cystadenomata.

Microscopically, a typical Brenner tumor of the solid type is not difficult to diagnose. However, since the proliferation of fibrous tissue stroma may become extreme and may dominate

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the histologic picture, care must be taken not to overlook the cell nests, otherwise the origin of the tumor may be missed. On the other hand, as Meyer pointed out, in the type B tumor the epithelium of the Brenner nests may undergo pseudo-mucinous differentiation and give rise to pseudo-mucinous cystadenomata, again, whose true origin will be overlooked unless by careful search the dense, hard Brenner tumor is found in the wall. The tumor also is to be differentiated from granulosa cell carcinoma, arrhenoblastoma, and dysgerminoma.

Grossly the tumor must be differentiated from fibromata of non-Brenner cell origin on the one hand and from cystadenomata on the other.

Case 1. The patient, a 64 year old colored female, was admitted on September 14, 1938, complaining of pain in the lower abdominal quadrants, pain along the left costal margin, and a gradually increasing abdominal tumor mass. The patient states that her present illness probably started about 10 years ago when she began to notice pain in the lower left abdominal quadrant usually of a steady aching nature, but at times sharply stabbing. This pain bore no relation to dietary habits or bowel movements. For about seven years the patient had been conscious of a mass in the lower part of the abdomen, steadily growing in size. The pain along the rib margin was of recent origin and was so indefinite in nature as not to be suggestive of gallbladder or other recognized disease usually giving pain in this region.

The patient had generally good health. Many years ago the right breast was removed for reasons which she does not know, otherwise past history is not remarkable. The family history was inconsequential. The patient was married at the age of 17, but her husband died 10 years later of "dropsy". She remarried, this husband dying a short time afterwards of "lung trouble".

Menses began and were regularly established

at the age of 14, of a regular 28 day type with a moderate flow lasting four days. At the age of 54 regular periods stopped, but since that time there had been episodes of irregular bleeding occurring at intervals of several months and lasting as long as two or three weeks. The patient had eight full term pregnancies with uneventful

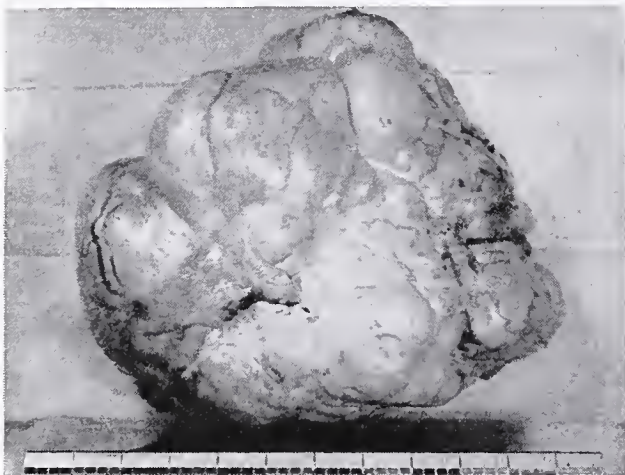


Fig. 1. Gross photo of Brenner Tumor of ovary showing lobulated appearance of external surface and a rather generous blood supply contained within the capsule.

labors between 1896 and 1916. Systematic inquiry revealed nothing remarkable except that vision had been failing for several years, and there had been episodes of nocturnal dyspnea.

Physical examination revealed a fairly well developed but poorly nourished colored woman appearing to be about her stated age of 64. The mental changes often associated with moderately advanced senile arteriosclerosis were present. The skin and its appendages were normal except for senile changes. The organs of special sense were not remarkable except for slight diminution of auditory acuity and presbyopia. The right breast had been removed. The lungs were negative to clinical examination except for evidences of mild emphysema. Cardiac dullness was not increased, the heart tones were distant and somewhat monotonous, blood pressure was 200/120. The pulse was of good quality and the peripheral vessels were not grossly sclerotic. In the abdomen a large, hard, movable mass was present giving an appearance suggesting a term pregnancy. Pelvic examination revealed that this mass arose from the pelvis and it was not possible to definitely outline pelvic structures. Laboratory work showed normal blood and urine but slightly diminished kidney function.

At laparotomy a large, white, fibrous tumor was found which practically filled the entire abdomen. There were numerous adhesions to the mesentery and to the anterior abdominal wall. The left ovarian pedicle was ligated and the tumor removed in the usual manner. The patient made an uneventful postoperative convalescence and was discharged on the fourteenth postoperative day. When seen six weeks later she was in excellent condition.

Gross Description: The specimen consisted of a large tumor mass measuring approximately 28x14x25 cm. and weighing 5.8 kilos. It was lobulated in character. The surface had a serosal covering and was hemorrhagic, with many blood vessels visible at the surface. The tumor had been attached by a relatively small and moderately vascular peritoneal fold. The tissue cut

with extreme resistance and the surface was lobulated and yellowish grey in color, with many blood vessels discernible from which blood flows on pressure. No cystic or degenerative areas were discernible on gross examination.

Microscopic Findings: The sections revealed a striking amount of dense fibrous tissue arranged in small bundles running in all directions. Scattered irregularly were small islands or nests of cells appearing to be epithelial in character. The cell outlines were somewhat indistinct and the cytoplasm was granular and faintly eosinophilic. The nuclei tended toward ovular in shape. The nuclear membranes were sharply defined and chromatin granules were scattered diffusely throughout. A single small nucleolus usually centrally placed was present. The general arrangement of the cells only suggested a definite cord-like arrangement. In a few areas the cytoplasm took the stain poorly but in no areas were cysts of even microscopic size apparent in the tissue chosen for sectioning.

Case 2. The patient, a 26 year old married negro female, was admitted on November 19, 1938, complaining of pain in the right lower quadrant and nausea and vomiting. The patient dated her illness to five weeks ago when she was seized rather suddenly with sharp knife-like pains in her lower right quadrant. This was accompanied by nausea and vomiting and she vomited several times since when these pains were sharp. The pain has remained localized and there have

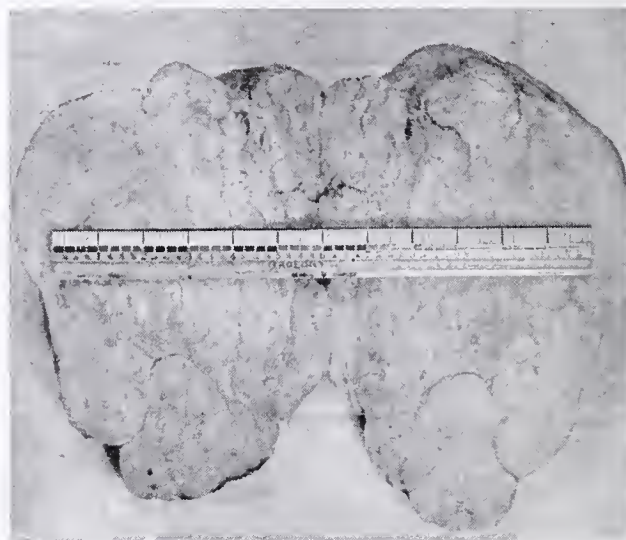


Fig. 2. Gross section of Brenner Tumor of ovary showing solid character of its structural formation.

been no symptoms directly referable to the generative system such as vaginal discharge and bleeding.

The past history was one of unusually good health. There has been no previous surgery, no trauma, or illness of consequence. The family history and marital history was inconsequential. Menses began and were regularly established at the age of 14, of a regular 28 days type with a moderate flow lasting for three days. During the past three years menses have varied slightly and have lasted five or six days. Patient had one pregnancy and normal labor in 1927. Inquiry by systems contributed nothing.

Physical examination revealed a well developed, but somewhat undernourished, colored female appearing to be about her stated age of 26. She was

in no distress and the pulse, temperature, and respiration were not elevated. The skin and its appendages were normal. Except for bad oral hygiene nothing remarkable was noted in the nose, mouth, pharynx, or in the organs of special sense. The lungs were clear to clinical examination. Cardiac dullness was of normal size, the heart

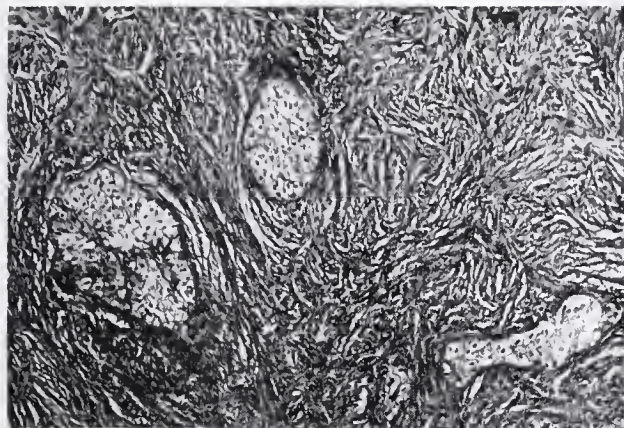


Fig. 3. Photomicrograph showing the solid fibrous character enclosing typical epithelial cell nests.

tones were of normal quality and the blood pressure normal. The abdomen was flat and soft. There was no pain on pressure over the lower right quadrant which seemed to be localized at McBurney's point. Pelvic examination showed the uterus to be normal in size, shape, and position. Adnexa on both sides were palpable and tender, but there was no fixation of these structure. Laboratory work revealed entirely normal blood, urine, and kidney function with the exception that the Wassermann was doubtfully positive.

At laparotomy small tubo-ovarian cystic masses were found on both sides, several pelvic adhesions were present, and the appendix was kinked, but otherwise not remarkable. A supravaginal hysterectomy, right salpingo-oophorectomy, left salpingectomy, and partial resection of the left ovary were done. The patient made a relatively uneventful convalescence until her tenth postoperative day at which time the temperature became elevated and X-ray showed findings highly suggestive of bronchopneumonia. The temperature gradually subsided and patient was discharged on her 23rd postoperative day apparently recovered.

Gross Description: The specimen consisted of a uterus measuring 7x6x4 cm., weighing 90 grams, grossly not remarkable. The right tube measured 10 cm. in length and 1 cm. in diameter, was quite tortuous and its fimbriated end was sealed to the ovary which contained several cysts. There was attached to one part of this ovary a very firm white nodule 1.5 cm. in diameter which cut with the resistance of a fibroid and on section revealed a smooth homogenous surface, white in color. The other tube measured 7 cm. in length and 1 cm. in diameter and its fimbriated end terminated in a small cystic mass which on cutting presented a dilated lumen but no exudate.

Microscopic Findings: Sections made from the nodule showed a Brenner tumor of the solid type. The connective tissue stroma is fairly dense and scattered irregularly throughout are cells of epithelial type which vary in arrangement from cords of single cells to nests of cells which,

however, still retain the cord-like arrangement. The cell outlines are sharply preserved but the cytoplasm stained poorly and in many cells remained unstained. The nuclei are somewhat more densely stained than in Case 1, were usually oval in shape and many contained a single small nucleolus.

SUMMARY

Two cases of Brenner tumors are reported. One is of special interest because of its unusual size. This would seem to be all the more interesting since in no part of the larger tumor were any cystic areas found. Insofar as we are aware this is the largest completely solid Brenner tumor reported in the literature.

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New Prophylactic Measures in Tetanus

From the data it would appear that tetanus toxoid is not being used on a mass immunization basis such as is the case with diphtheria and smallpox but that it is being used quite generally on an individual basis by physicians as a preventive. This seems to be especially true of the pediatricians.

In its general use, it is well for the user to remind himself that immunity from tetanus toxoid develops rather slowly so that only after a second dose given about three months after the first can it be assumed with reasonable certainty that the patient is protected; that this immunity is not permanently high but requires a boosting dose in about a year or more or at the time of a subsequent injury, which produces a prompt restoration of the high titer of the blood; and, finally, that alum-precipitated toxoid is probably the preparation of choice, although there is not complete unanimity of opinion regarding the latter.—Carl N. Neupert, M.D., Madison; *Wisc. Med. Jour.*, Vol. 42, No. 9, September, 1943.

Congenital Retroversion of the Uterus. A Misnomer

J. L. BUBIS, M.D.

THE term "congenital retroversion of the uterus" has for a long time been used to designate a condition found at examinations generally made after puberty. J. L. Baer¹ states that individuals in which this condition is found are usually asthenic, have intestinal ptosis, hypoplastic or infantile types of uteri, incomplete descent of the ovaries due to foreshortening of the infundibulo-pelvic ligaments, lack of development of the uterine and vesico-uterine ligaments, shortened anterior vaginal walls, and deep cul-de-sacs.

L. J. Stacey² examined 1000 consecutive cases of unmarried women between the ages of 15 and 45 years, who gave no history or record of pelvic infection, tumors or pregnancy, but in whom various displacements and attending symptoms were found. Where no pathologic or physiologic factors could have affected the position of the uterus, 20.2 per cent of these women showed uncomplicated retroposition.

A. M. Campbell³ states that retroversion and retroflexion occur in at least 25 per cent of all women. In the majority of instances the displacements antedate the pregnancies.

W. T. Dannreuther⁴ finds that "congenital" displacements are identified in most cases by a foreshortened anterior cervical lip and anterior vaginal fornix, a general hypoplasia of the internal pelvic organs and limited mobility of the uterus despite the absence of restraint from adnexal inflammatory involvements. They are frequently associated with endocrine derangements, and are discovered incidentally in young women who present themselves because of dysmenorrhea, menstrual irregularities or sterility. In 3400 consecutive office patients, he found retrodisplacements in 429 cases, or 12.5 per cent; and 72 or 16.8 per cent of the displaced uteri were classified as congenital displacements. O. S. Krebs⁵ found displacement of the uterus in 18 per cent of the primiparas and multiparas combined after delivery and considered that 16 per cent of these were "congenital".

Since retrodisplacement of the uterus is so common and such a large percentage were classified as congenital, and since no one to my knowledge has questioned the conclusions drawn, I have written to many of the leading pathologists throughout the country, especially those in children's hospitals, and have asked whether they

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have ever seen a retroverted uterus at autopsy in the newborn or in infancy. The answers received were interesting. In all of the thousands of autopsies performed, only one case was noted in which this condition was present. Kornel Terplan⁶ described an autopsy examination in which a right hydroureter in a stillborn infant was accompanied by retroversion and dextroversion of the uterus and considerable accumulation of mucus in the cervical canal. He believes the dilatation was caused by pressure on the most distal portion of the ureter.

H. Goldblatt⁶ stated that his general impression is that congenital retroversion is not a common condition. He thinks that he can recall without question deformities of that kind, but does not wish to be held too strictly to that statement.

Fifteen other pathologists⁶ who have responded to my questionnaire failed to note the condition in the many thousands of autopsies performed. If congenital retroversion of the uterus were as common as statistics lead us to believe, then this condition would certainly have been noted by some of these pathologists. Why, then, is there such a discrepancy between the observations of clinicians and the pathologists? It is true that the so-called congenitally retroverted uterus generally occurs in certain types of asthenic individuals with poorly developed musculature. But, on the other hand, many of the girls and women with this condition are well-developed, athletic, and have no other stigmata suggesting that nature has failed in producing the average healthy being. Pregnancy occurs in these cases of "congenital retroversion" in about the same ratio as sterility occurs in normal ones.

For some time I have been trying to trace the origin of this abnormality. Examination of the patients whose displacements were not due to infections, tumors or pregnancy, revealed an interesting common history. They invariably remem-

ber that many times during their childhood they did not take the time to empty their bladders for hours after they had felt the urge. This was remarked by both the well-developed and the under-developed types of women.

Assuming that the uterus is in a forward position in almost all female infants, I believe that the displacements start to occur about the time the child should express her desire to void. From then on, through kindergarten and the lower grades of school, she does not yield to the urinary urge on account of interference with playing, hesitation to ask the teacher if she may leave the room, modesty, or other inhibitory influences. The constantly distended bladder tends to force the uterus backwards, change the elastic tone of the supporting ligaments of the uterus, and this, with the increased intra-abdominal pressure from constipation which is usually concomitant, pressure from the intestines on the upper anterior surface of the uterus, gradually forces this organ back toward the cul-de-sac.

Of course, many children have distended bladders and bowels and no resultant retroversions. Those who have developed the displacement were those whose ligaments and musculature were inherently weaker or more often under strain.

We must, then, consider true congenital retroversion of the uterus an extremely rare abnormality, and call this common malposition "acquired retroversion".

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Otosclerosis

The last, and the most frequent and important cause for conduction deafness is otosclerosis. Otosclerosis causes most of the cases of chronic progressive deafness in early and middle adult life, so that about 70 per cent of the members of the Society of the Hard of Hearing have this condition.

Otosclerosis is a disease affecting the hard bony capsule that surrounds the labyrinth of the inner ear, beginning as a focus of new-formed spongy bone that replaces the normal hard ivory-like capsule. The most frequent area affected is just in front of the oval window, so that as the focus of otosclerosis slowly enlarges it gradually encroaches upon the oval window until finally it grows across onto the footplate of the stapes resulting in ankylosis. The hearing impairment which came on very slowly and insidiously becomes profound as the conduction of air-borne sounds become completely shut off by the obliteration of the oval window.

The cause of otosclerosis is not known, except that there may be an hereditary tendency. There is no medical treatment to arrest the process or to restore the hearing, and until very recently we could only make the diagnosis, advise against unnecessary and useless treatment and enjoin the use of an electrical hearing aid and lip-reading.

Because the hearing loss in otosclerosis is primarily due to a mechanical obstruction to sound conduction it has seemed reasonable to attempt to circumvent this obstruction by surgical means. For nearly fifty years otologists tried to make a new window into the labyrinth of the inner ear to take the place of the occluded oval window, but those attempts invariably failed because the artificial oval window would heal over by new bone and any hearing improvement would be lost. In 1924 a Frenchman named Sourdille first succeeded in restoring the hearing permanently in a case of otosclerosis by a complicated and prolonged three or four-stage operative procedure extending over more than a year. Although Sourdille operated on a considerable number of cases of otosclerosis apparently with a fair degree of success, his operation was too time-consuming and his results were too unreliable for it to be practical. It was not until 1938 that a practical means of restoring hearing in otosclerosis became available, when Julius Lempert, an American, improved upon and combined Sourdille's series of operations into a single one-stage technique. Lempert's original operation known as the fenestration operation has been further improved until now, with the technique in use during the past year, I am able to report a probably permanent hearing improvement in approximately 90 per cent of the patients operated upon.—George E. Shambaugh, Jr., M.D. Chicago, Ill.; Jour. Mich. S.M.S., Vol. 42, No. 7, July, 1943.

Intravaginal Sulfanilamide Insufflation in the Treatment of *Trichomonas Vaginalis* Vaginitis

R. KENT FINLEY, M.D. and JAMES MILO SHAFFER, M.D.

PROBABLY there are few, if any, conditions encountered in office practice which have received as many diverse methods of treatment as *Trichomonas Vaginalis* Vaginitis. The very fact that so many methods have been tried and discarded is indicative that the claims made for them were not warranted and that many of the problems of treatment still remained.

Trichomonas vaginalis is one of the commonest types of vaginal infections, being estimated by Curtis¹ to cause from 28 per cent to 70 per cent of abnormal vaginal discharges. While it may be spread through intercourse, probably the greatest number of infestations occur through contaminated bath water. Contamination from the rectum and bladder also are considered frequent sources of infection.

Although the trichomonad is always found in the vaginal secretions, there is still suggestive evidence that the flagellate is not the sole etiological agent. A strong possibility exists that the vaginitis is the result of various bacteria growing in symbiosis with the trichomonad. A profuse growth of bacteria is invariably found in the vaginal flora in patients suffering from *Trichomonas vaginalis*, with a large gram positive streptococcus almost invariably present. (Curtis²). Other organisms present in a smaller percentage of cases are the Doderlein bacillus, a small non-hemolytic gram-negative streptococcus, staphylococcus, *B. Coli*, and *B. Ducrey*.

Working on the assumption that the sulfonamides would eradicate the bacterial invaders from the vaginal tract, and also feeling that these drugs might act specifically against the trichomonads, we began to use the sulfonamide compounds by intravaginal insufflation about 14 months ago.

At that time we had already observed that the insufflation of the sulfonamides almost invariably aided various cases of non-specific leukorrhea and was of definite value in the postoperative care of patients following vaginal surgery. However, it soon became apparent that those patients in whom the trichomonas was found appeared most benefited by intra-vaginal insufflation.

The use of the sulfonamides locally has been described by Bickers³ in the treatment of acute gonorrhea in woman by the vaginal insertion of sulfanilamide suppositories. He points out that there is only minimal absorption into the blood

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stream. Flagg and Koenig⁴ have used sulfathiazole locally in the treatment of chronic cervicitis, in 13 cases. Since we began our work, Fletcher⁵ has called attention to the use of sulfathiazole insufflation vaginally in various types of acute and chronic vaginitis, although he makes no specific mention of *Trichomonas vaginalis*. He gives credit to Allee for first describing this form of therapy.

Up to the present time we have treated 31 cases by this method with gratifying results. While this is too small a group from which to draw any definite statistical conclusions, the results obtained appear to warrant a report of this form of therapy and justify further studies.

Sulfanilamide powder proved, in our hands, more satisfactory than sulfathiazole since it caused less caking in the insufflator and in the vagina. Furthermore, sulfanilamide has been shown by many investigators to be the drug of choice for topical application, whether in the abdominal cavity, in wounds or on granulating surfaces, because of its solubility, ease of administration and relative lack of local reaction. The powder, rather than the crystal form of sulfanilamide must be used, since the crystals cause marked vaginal irritation at times.

The type of insufflator has proved of utmost importance. An insufflator must be used with a large bore and with sufficient blowing power to force the powder through the tip easily and evenly. The insertion of approximately one gram (about a teaspoonful) of chemically pure talc to three grams (45 grains) of sulfanilamide overcomes any tendency toward caking in the bottle. This must be mixed fresh the day of use. The talc is not used postoperatively until all raw surfaces are healed.

In the cases reported, approximately three grams (45 grains) of powder were used as a treatment, care being taken first to thoroughly

cleanse the entire vagina with peroxide and then dry it completely. Insufflation of the sulfanilamide was given three times weekly during the first two weeks, and twice weekly the second two weeks. Care was taken that treatments were given just prior and just following the menstrual period. The cost of the powder used averaged about two cents per treatment.

Smears of the flagellate and the pH of the discharge were taken routinely. Careful examination of the cervix was carried out in every case. Deep lacerations and chronic endocervicitis were routinely treated surgically since it was felt that these cervical lesions provided potential hiding places for the flagellates and organisms and acted as sources of reinfection. The acute inflammatory vaginitis was treated first by insufflation until it had resolved before surgery was performed.

Because of possible infection of the bladder, urinalyses were always performed and treatment instituted when indicated. Each patient was also instructed as to the proper cleansing of the rectum after defecation, that is, from the vagina towards the rectum rather than in the reverse manner.

Of the 31 cases treated, four either left the city or did not return for completion of treatments. All of these had negative smears at the time of the last treatment. Four additional cases have negative smears at the present time but have not been followed for more than two months, hence they cannot be considered as yet in an analysis of the results obtained. The remaining 23 have been followed for from two to fourteen months, averaging eight months.

In every case, the initial treatment gave almost immediate and dramatic cessation of all symptoms. The most frequent symptoms, in order, were discharge, pruritus, and dyspareunia. These complaints varied from two weeks to seven years in duration, averaging about four months. Five patients had suffered from previous attacks. The pH varied from 4.5 to 7.5 and averaged 6.0 slightly on the acid side. In ten patients, cervical lesions ranging from simple erosion to severe lacerations were present. Irrigation of Skene's duct with 1 per cent sulfanilamide solution was done routinely whenever these ducts were found thickened or enlarged. No toxic reactions were observed in any patient.

There were six recurrences in the group of 23 cases in which adequate follow-up was obtained. Only four of the six had recurrence of symptoms, that is, discharge, pruritus or dyspareunia. This again suggests that there is some etiological agent other than the flagellate alone in cases of trichomonas infestation.

In addition to the insufflation of sulfanilamide

powder, we have been using two measures which we believe to be of additional value as supplementary treatment. One is the high insertion of capsules of sulfanilamide intravaginally by the patient at home, every second night, preceded by an acid cleansing douche. Johnson⁶ has shown experimentally that growth of the trichomonad is limited or stopped by reactions below pH 5.0 and above pH 7.55. The capsules contain one gram (15 grains) of sulfanilamide, and the patient is instructed to perforate the ends of the capsule prior to insertion.

The second adjunctive method of treatment, designed primarily to help eradicate the bacterial invaders commonly present, is the insufflation of zinc peroxide powder, either in conjunction with or alternating with the sulfanilamide. Johnson⁶ has shown that oxygen exerts a marked depressing effect upon the growth of the trichomonad. Sulfanilamide has mild oxidizing action while zinc peroxide is an excellent oxidizing agent.

It must be realized that sulfanilamide powder insufflation is not the final answer in the treatment of trichomonas vaginalis vaginitis. The relatively high percentage of recurrence demonstrates again the difficulty encountered in complete eradication of the flagellate. However, the striking immediate disappearance of symptoms in all patients suggests that sulfanilamide is a powerful therapeutic aid in treatment. This is further borne out by the fact that four out of the six recurrent cases subsided following a second series of treatments. Further experience with the powder should decrease the number of recurrences and point out the indications for more vigorous or intensive treatment when indicated.

CONCLUSION

The use of sulfanilamide powder by intravaginal insufflation appears to be of great value in the treatment of *Trichomonas vaginalis* vaginitis. Following one insufflation of three grams of powder, all symptoms subside within a matter of hours in a dramatic fashion. The powder appears to act specifically against both the flagellates and other bacterial invaders commonly found in conjunction with them.

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Management of Pregnancy and Labor Complicated by Extensive Bronchiectasis

ZEPH J. R. HOLLENBECK, M.D.,

ONE is amazed at the absolute lack of material in the literature and in the standard text and reference books regarding this uncommon but important and troublesome complication of pregnancy and labor. The problems presented are numerous. These together with the effect of the two conditions upon each other and upon the maternal organism will be briefly discussed.

The first question to arise is the advisability of therapeutic abortion in the presence of severe bronchiectasis. This, it seems, would depend largely upon the ability of the patient in the non-pregnant state to handle her infection—to maintain the status quo—with the aid of well supervised non-operative treatment. A consideration of the patient's vital capacity and the extent to which the disease has reduced this is also important as a further reduction is inevitable as she approaches term. The physician might also be influenced by the desire of the patient to continue with her pregnancy especially if she has no living child. It seems that, all else being equal, an extensive bilateral involvement would dictate a therapeutic interruption of the pregnancy. If this course is elected, the problems of anesthesia and analgesia are similar to those presented in the management of labor complicated by this disease.

MANAGEMENT OF THE PREGNANCY

In the presence of such a massive infection, it is important that every effort be made to attain and to maintain the best possible state of general body resistance. In addition to outlining a rigid regime of rest, exercise, elimination, and diet, the obstetrician should greatly augment the mineral and vitamin intake, particularly that of iron and vitamin A. The treatment of the bronchiectasis continues as in the non-pregnant state but the patient must appreciate the added load of the pregnancy and labor and be continuously encouraged to maintain vigorously the methods designed to control her disease. Regular postural drainage carried out in the usual manner should be practiced at least three times daily and more often if necessary. Coughing, generally, is best controlled in this way rather than by sedative cough mixtures, the use of

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which is definitely contra-indicated. Violent coughing very often occurs at the time of the postural drainage but persistent coughing is averted. It seems best to schedule postural drainage at times when the stomach is empty because of the vomiting which often accompanies the paroxysms of coughing. Dyspnea and orthopnea, with consequent insomnia, which becomes progressively more troublesome as term approaches, are best relieved with sedatives of the barbiturate group or with other non-narcotics.

Regular lipiodolization and other local measures used in the treatment of the bronchiectasis *per se* should be carried out by one skilled in the medical management of this disease.

MANAGEMENT OF LABOR AND THE PUERPERIUM

It seems logical to assume that in this type of case one would be confronted, more often than not, with premature labor precipitated by the untimely rupture of the membranes. This would be due to the marked increase in intra-abdominal pressure accompanying the paroxysms of coughing. For the same reason premature separation of the placenta might be more common.

Because of the ever increasing discomfort of the patient, due to the progressive reduction of her vital capacity, it may be deemed advisable to induce labor at or shortly before term. Analgesia during labor may well be accomplished by the use of one of the barbiturates and scopolamine or other non-narcotics, such as demerol*, or perhaps better with continuous caudal anesthesia. Neither opium derivatives nor inhalation

*Demerol, from recent reports, seems to be ideally suited to use in this type of case because it has a morphine-like central action without causing depression of respiration or inhibition of the cough reflex.

anesthetics should be used as it is of great importance not to suppress the cough reflex in a patient with bronchiectasis. The danger of further pulmonary contamination with possible consequent pneumonia is ever present. The second stage should be shortened as much as possible by episiotomy and low forceps delivery under local and pudendal block or caudal anesthesia.

If obstetric reasons indicate cesarian section, it should be performed under local anesthesia. Spinal anesthesia is not well adapted to laparotomy as it causes a paralysis of the abdominal wall muscles whose function is so important to these patients during paroxysms of coughing. This function of the abdominal muscles, with resultant increased intra-abdominal pressure, calls attention to an important complication of abdominal section, namely, postoperative wound disruption. If careful technique has been observed in the closure of the abdominal wound and if the immediate and continued postoperative use of abdominal support has been utilized, much will have been done to prevent this appalling situation.

POSTPARTUM CARE

During the immediate postpartum period these patients must be closely watched for signs of cardio-respiratory embarrassment and every effort used to prevent collapse. For this, blood transfusion is indicated. This measure would also prove beneficial in increasing the patient's resistance to acute pulmonary infection. Oxygen therapy might well be a routine procedure and continued until all danger of anoxia and shock has passed. To eliminate the possibility of an overwhelming pulmonary infection which might result from an extension of the already chronic state or from aspiration, it is advisable to begin sulfonamide therapy as soon as possible in the puerperium.

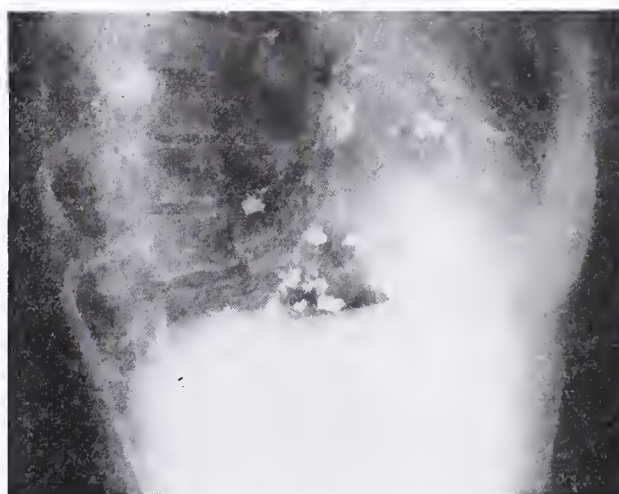
The patient with bronchiectasis, it seems, would be only further depleted by nursing her infant and therefore appropriate measures should be taken to inhibit lactation.

The problem of postoperative or postpartum analgesia can be easily solved by the use of demerol or coal-tar derivatives in conjunction with sedatives of the barbiturate group.

Postural drainage must be carried out during the puerperium as during the pregnancy. The violent paroxysms of coughing which accompany the postural drainage place a terrific strain upon the parturient pelvic fascia and uterine supports. This undoubtedly increases the tendency toward the development of cystocele, rectocele and prolapse of the uterus. It would be well then to insist that these patients remain in bed until involution is nearly complete or until they can undergo surgical treatment of the bronchiectasis.

CASE REPORT

Mrs. S., a 36 year old primagravida, was first seen the sixth month of her pregnancy at which time she was seven pounds below her usual weight of 128. Her past history was essentially negative except for these pertinent points. She had pneumonia at the age of 15. Four years previous to the beginning of the pregnancy she developed a cough which became productive of increasing amounts of foul-smelling sputum. The respiratory condition had been studied in the University Hospital on the service of Dr. George M. Curtis where a diagnosis of extensive saccular bronchiectasis of the right lower lobe was made. She had received regular treatment for this and had been advised that surgery (lobectomy) was indicated. This was postponed, more because of procrastination than refusal on the part of the patient. In the interim she became preg-



Lateral view, after lipiodolization, of lower right lobe showing extent of bronchiectasis.

nant. Previous to this, her menstrual periods had been regular with a 28 day cycle and a flow of five days without pain. When she was first seen, she had no complaints regarding the pregnancy which had apparently progressed satisfactorily to this point.

The physical examination was not remarkable except for a foul breath, rather marked clubbing of the fingers and the fact that coarse bubbling rales could be heard over the entire lower right chest. The abdomen presented the enlargement of a six months pregnancy and the fetal heart heart was audible in the lower right quadrant. The pelvic examination revealed the findings of a normal pregnancy. The pelvic measurements were entirely within normal limits. The blood pressure was 110/70. The laboratory work was as follows: rbc. 3,800,000, hbg. 65 per cent, wbc. 7,400 with a normal differential; Kahn negative; urinalysis negative. Her X-ray findings are shown in the accompanying figure.

The patient was placed on ferrous sulfate gr. 3, three times daily, vitamin A capsules, 25,000 units daily and unicons (Upjohn) one daily. As the pregnancy progressed, she complained more and more of insomnia due to orthopnea and of dyspnea on slight exertion. The orthopnea and sleeplessness were controlled with barbiturates. The treatment of the bronchiectasis was carried on throughout the pregnancy with regular postural drainage three or four times daily and with lipiodolization at monthly intervals.

The pregnancy progressed without major incident until 25 days before the calculated date of confinement when the membranes ruptured spontaneously during a fit of coughing. The patient went into labor within eight hours and was admitted on the obstetrical service of the University Hospital. On admission the cervix was 2 cm. dilated and uterine contractions were moderately severe at five minute intervals. The patient's blood pressure was 105/68. She was given sodium pentobarbital gr. 4½ and scopolamine gr. 1/150. The analgesia was quite satisfactory. Her labor progressed normally and she was delivered of a living male infant by low forceps. Median episiotomy with repair and the delivery were accomplished under local anesthesia with 1 per cent novocaine. The third stage was uneventful. The first stage was six and one-half hours in duration, the second stage one hour and twenty-five minutes and the third stage ten minutes.

The immediate postpartum condition of the patient was good and she was returned to her bed. Within an hour and one-half she had begun to have a rather marked dyspnea which became progressively worse and was soon accompanied by orthopnea and considerable coughing. She became cyanotic and coughed up much frothy foul-smelling material. Oxygen therapy was begun and she received 50 cc. of 50 per cent glucose intravenously. She responded readily to these measures and the respiratory embarrassment had completely subsided within four hours after delivery. The oxygen was continued for twelve hours and she was given sulfathiazole 4 Gm. daily for four days post-partum. The remainder of her course was uneventful and she was discharged from the hospital on her twelfth post-partum day. No attempt was made to nurse the infant.

She did not return to the office for the usual post-partum visit as she was instructed to do and was finally seen after six months. During this time she had completely neglected the chest condition and noted that her cough and sputum production was becoming gradually worse. She was strongly urged to seek further medical and surgical care of the bronchiectasis.

Pelvic examination at that time revealed a rather marked relaxation of the anterior and posterior vaginal walls with a large cystocele and rectocele. The perineum was fairly well supported. The uterus was normal in size and consistency but was slightly prolapsed. The cervix and the uterine adnexa were not remarkable.

SUMMARY

The patient with bronchiectasis can be carried through pregnancy and labor if she has been able to handle her infection with the aid of medical management in the non-pregnant state.

The use of inhalation anesthetics and of morphine or other opium derivatives is contra-indicated.

The immediate post-partum state is the critical period for these patients and vigorous treatment may be necessary to prevent collapse and overwhelming infection.

Some of the other problems presented by this complication of pregnancy are discussed.

Artificial Insemination

Artificial insemination, according to legend, was first done by the Arabs in the fourteenth century. It is said that men from a warring tribe stole into the enemy's camp and artificially inseminated the full-blooded mares with semen from a broken-down, common stallion. This would be much like watering the enemy's gas in the mechanized war of today. Jacobi artificially inseminated the eggs of fish in 1600, and Spallanzani a bitch in 1782.

John Hunter was the first physician to practice artificial insemination upon a human; this was at the end of the eighteenth century. His patient was the wife of a man suffering from hypospadias. The husband collected his semen and it was injected shortly thereafter into the wife's vagina, and she became pregnant. The great Marion Sims of vesicovaginal and duck-billed speculum fame was also a pioneer in the field of artificial insemination. He made fifty attempts in six patients and obtained one pregnancy.

In the modern treatment of sterility, there are two types of artificial insemination: when the husband's semen is used (homologous) or when the semen of a fertile, unrelated donor is substituted (heterologous). It is the latter type only which raises any social issues.

There are two schools, one led by Francis Seymour of New York, which thinks that all kinds of unsurmountable legal safeguards should be thrown about the procedure; and another which feels that heterologous artificial insemination should be done only for the couple of exceptional intellectual and ethical capacity, and with this restriction legal safeguards become unnecessary. Dr. Seymour insists on signed papers in duplicate from the recipient, her husband, the donor, and his wife. Furthermore, the blood groupings of the supposed father and the biologic father must be the same. To me, such complicated behavior robs artificial insemination of any advantage over adoption. It should be simple and matter of fact, without telltale signatures, so that, psychically, by the time the baby is born, the parents have to pinch themselves to realize that it was not conceived in the ordinary manner. Perhaps this point of view is not strictly legal, but it is eminently humane.—Alan F. Guttmacher, M.D., Baltimore, Md.; *W. Va. Med. Jour.*, Vol. 39, No. 9, September, 1943.

Let us be warned that tuberculosis still shows no sign of adopting the forty-hour week.—Charles E. Lyght, M.D., *Amer. Rev. of Tbc.* Sept., 1942

Preventive Approach to Defective Hearing

EARL E. KLEINSCHMIDT, M.D.

IN a recent publication,¹ Dr. Warren H. Gardner, President of the American Society for the Hard of Hearing, asserts that, "Medical treatment today indicates success in restoring hearing—provided children are found in the early stages of their deafness. Here indeed is a remarkable opportunity for public health officials, physicians and educators to unite in the prevention of deafness with its subsequent school, personality, and social maladjustments".

This challenging statement is indicative of the trend of thinking these days and bespeaks a tendency to place the main emphasis of the program for the conservation of hearing in the first two decades of life. It may be inferred also, that otologists are now definitely looking at the problems of the deafened from a preventive standpoint. At a time when health supervision of children is in danger of being neglected because of the demands of war, it is refreshing to find that the problem of deafness and its prevention is being approached in terms comparable to other preventable physical disorders. No longer should it be necessary for educators and public health workers to stand helpless in the face of impending or potential deafness in children, and the consequent loss to society of useful young lives. Today, when health is being emphasized as a national asset, every effort should be put forth to see that the deafened are not neglected.

Few people, however, seem to appreciate the many-sided aspects of a program for the conservation of hearing, or the meaning of deafness in terms of the economic and social losses sustained by those affected. To most persons it still is a matter of an individual having either normal hearing, or being deaf—and if the latter, wearing a hearing device to compensate for his deficiency. There is too little appreciation in either public or professional circles for that matter of the things that can be done to effectively reduce the incidence of this disorder.

DEAFNESS, A PUBLIC HEALTH PROBLEM

Studies made in recent years by members of the United States Public Health Service and the National Research Council indicate that out of every ten thousand children, 44 will acquire handicapping deafness; and that 25 to 30 per cent of children having slight losses of hearing will eventually acquire marked losses in a period of five years or less if not given the benefit of medical care.

The Author

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Some idea of the magnitude of the problem may be gained from recent surveys by members of the United States Public Health Service. These reveal an estimated ten millions of persons in the United States as having demonstrable deficiency of hearing causing a recognized potential handicap. Of this number three millions are school children of whom three hundred thousand are already handicapped in their scholastic achievement.

But, while the number of persons affected by difficulty in hearing arbitrarily places deafness in the category of a public health problem, it is rather surprising to find that public health departments seldom engage in activities coming under this heading. To be sure, public health nurses do occasionally carry on cursory inspections of the ears and ordinary hearing tests, but in view of recent scientific developments, these cannot be considered to be adequate to detect all hearing defects. Thus, for example, in a recent WPA project carried out in Minnesota public health nurses discovered only 2.2 per cent of children as having a significant hearing loss, with the use of the whisper and watch tests, as contrasted with 8 per cent found in the same area when the audiometer was utilized.

The reluctance of taxpayers to permit health departments to utilize available appropriations for the conservation of hearing programs indicates a lack of appreciation of the scope of the public health program. On the other hand, it should be mentioned that conservative health officials usually engage in those health activities which are certain to receive public approbation such as, for example, program for the prevention and control of communicable diseases; and rather than provoke a storm of public criticism, they much prefer to entrust health problems such as deafness to the care of unofficial health agencies. Lack of sufficient funds for essential health activities accounts in other instances for the apparent inability of public organizations doing much about this problem. Until such a time as tax-appropriating bodies can be convinced of the merits of a well-organized program for the conservation of

Submitted September 1, 1943.

¹Gardner, Warren H.: Hearing Impairment Problems. *Journal of School Health*, 8 (May, 1943), 118.

hearing sponsored by official health agencies comparable, let us say, to the present program for the prevention and control of the venereal diseases, it is doubtful whether much progress can be made. The problem of the deafened needs to be dramatized sufficiently to make it meaningful to the man on the street.

When, for example, the average citizen becomes aware of the fact that children are being committed to institutions for the feeble-minded whose only handicap is one of difficulty in hearing; and when superintendents and teachers realize that children with impaired hearing are being sent regularly to psychiatrists simply because they failed to pass group intelligence and achievement tests, then we will see a change in the prevailing attitude toward the deafened.

Retardation, the perennial annoyance of the teacher, and a burden to the tax-payer, occurs at least twice as often among children with a hearing defect as among normal hearing children. Speech defects have been shown to occur eight times as frequently among hard of hearing children as among pupils who hear normally.

Statistics concerning the occurrence of behavior problems due to hearing defects are not available, but if they were, they undoubtedly would show the damaging effects of discouragement in those children who failed because of a neglected or uncompensated hearing deficiency. An enlightened public opinion made aware of the frequency and seriousness of these conditions cannot refrain indefinitely from taking steps to ameliorate existing conditions.

RELATION TO EDUCATION

To ensure all children of an equal educational opportunity, steps must needs be taken not only to discover the hard of hearing child but, in addition, to provide adequate medical treatment as well. If the state can compel attendance of children in school, then it stands to reason that it should likewise provide facilities and personnel to ascertain their physical as well as their mental status lest teachers do them irreparable harm by misjudging their response to the educative process. Once an impairment is discovered, it no longer remains a school problem; instead, it should be left to the private otologist to ascertain what needs be done. After all the school is primarily an educational institution. But the problem of rehabilitation, however, is one which should be shared by both the private physician and the specialist in education assigned this particular responsibility.

Mindful of its obligation to the children within its borders, the state of New York has recently enacted legislation making mandatory the annual testing of public school children with the use of the audiometer. This action resulted from efforts

put forth by the Medical Society of the State of New York, the state education department, the state board of health, the New York League for the Hard of Hearing, and other civic-minded groups throughout the state. It constitutes the outstanding example to date of a united effort by representatives of medical, public health, education, and related professions to secure for every child the benefits of early discovery of impaired hearing with consequent benefit of preventive medical measures aimed at its alleviation or correction. The state of Ohio could well afford to emulate this legislation.

SCHOOL, THE MOST IMPORTANT UNIT IN CONSERVATION OF HEARING

In view of the fact that accurate detection of a slight or moderate deficiency of hearing in either the infant or very young child is impossible, it falls largely upon health workers in the nursery, elementary and secondary schools to discover this handicap in children. The school is without question the most important unit in a community program for the detection of hearing defects and the rehabilitation of the handicapped child once he has been discovered. It follows logically that this responsibility should be entrusted to representatives of the school health service. To the person familiar with this problem, it becomes readily apparent that if measures for the prevention of deafness are to be taken, the detection of small and unsuspected hearing impairment by trained personnel is absolutely necessary. This in turn requires scientific instruments operated by properly qualified persons. And paralleling this program there must be a medical program for the early treatment of those discovered as having beginning deafness.

The successful medical follow-up of the hard of hearing is based primarily upon the findings yielded by mass screening tests of the hearing acuity of all members of the school population. These tests should not, as many seem to think, be limited to selected groups of obviously or suspected hearing defective pupils lest many others be overlooked. Like tuberculosis, deafness must be sought after—a case finding program is needed to discover deafness in its incipient stage. Periodic health examinations of school children should in all instances be accompanied by careful audiometric studies.

THE PHYSICIAN'S PLACE IN THE PROGRAM

Ever since the founding of the American Society for the Hard of Hearing in 1919 by Dr. Wendell Phillips, physicians have taken an active part in the movement for the prevention of deafness and the conservation of hearing. Their efforts to interest the public in the problem is attested to by the fact that over two hundred Leagues for the Hard of Hearing have since been

organized in the United States to enlist support for this program.

This is a task in which all physicians can take a part regardless of their fields of specialization or practice. It isn't necessary, for example, that the private physician be in possession of an expensive audiometer, or necessarily be an otologist. Prevention of hearing defects can be accomplished by conservative management of childhood systemic diseases with the use of preventive measures whenever possible. Immunization against diphtheria, smallpox, whooping cough and other childhood communicable diseases is, of course, axiomatic. Careful attention to the tonsils and adenoids with removal, if septic, and follow-up to ascertain the presence of adhesions adjacent to the orifice of the eustachian tube is essential. Nasal infections should always be carefully treated with attention given to sinus involvement, and other complications.

The presence of foreign bodies or impacted cerumen in the external canal should be anticipated in all children and careful routine examination made of the external canal and tympanic membranes. Retraction, inflammation, or scarring of the latter is definite evidence of middle ear involvement and should be so regarded. The regular use of the otoscope in all cases of childhood diseases is still overlooked occasionally in the best regulated practices. Careful attention should be paid to the continued presence of hyperplastic, lymphoid tissues adjacent to the pharyngeal orifice of the eustachian tubes with the consequent closure of the canal. This is a condition requiring continued observation and treatment. Failure to recognize its seriousness may result in permanent deafness.

As a practitioner of preventive medicine, the family physician occupies a position of great prestige and influence in the community, both as a therapist and as a teacher of hygiene. In the latter capacity, he can, if he chooses, serve his community in a unique capacity by dispensing health information by public address, by radio, and by the written word. If he chooses to provide teachers with helpful suggestions concerning signs indicative of poor hearing, he not only enlists their cooperation, but in addition, extends the effectiveness of the community health program as well.

CONCLUSION

Careful surveys in recent years reveal that the number of persons afflicted with deafness has assumed the proportions of a public health problem. Especial emphasis is being placed today on preventive measures and early detection and treatment in childhood. This problem is one in which the physician, the public health official, the educator, the legislator, and the parent share equal responsibility.

Outline of Management of Meningococcic Meningitis

I. Diagnosis

- A. History—headache, nausea, vomiting, fever, chills, stiff neck, mental changes.
- B. Physical findings—mental changes, fever, stiff neck, positive Kernig's sign, petechiae.
- C. Spinal fluid
 1. Turbid.
 2. Many polymorphonuclears.
 3. Sugar—low.
 4. Protein—high.
 5. Pressure—elevated.
 6. Gram's stain—gram-negative intracellular Diplococci.
 7. Culture—positive for *Neisseria intracellulalis*.

II. Special therapy

- A. Sulfa drugs—sulfadiazine or sulfapyridine.
 1. Blood level of 12 to 15 milligrams per cent optimum.
 2. If drug reaction develops, force fluids and change or discontinue drug, depending on the patient's condition.
- B. Antitoxin
 1. 80,000 to 100,000 units in saline intravenously first day.
 2. Repeat initial dose on second and third day orally or intravenously.
 3. Treat reactions symptomatically.

III. General therapy

- A. Isolate patient—attempt to find source of infection.
- B. Diet—liquid or soft.
- C. Fluids—over 4,000 cubic centimeters per day orally or intravenously.
- D. Sedation
 1. Paraldehyde—per rectum or intravenously.
 2. Sodium Amytal—intramuscularly or intravenously.
 3. Codeine and aspirin for pain.
- E. Bowels and bladder—enema plus catheterization.
- F. Blood transfusions—for falling count.
- G. Fever—symptomatic.
- H. Quarantine—three weeks.

—Clark H. Millikan, M.D., and Don W. Chapman, M.D., Iowa City; Jour. Iowa S.M.S., Vol. XXXIII, No. 9, September, 1943.

The battlefields of the spirochetes are the blood vessels of the brain.—Fetterman.

Doctors should do their knocking with a reflex hammer.—Fetterman.

Chronic Pyelonephritis With Hypertension and Vascular Disease of the Alimentary Tract

VIRGIL D. HAUENSTEIN, M.D. and PEARL M. ZEEK, M.D.*

Case No. 182951. A nineteen year old white female patient entered the Cincinnati General Hospital because of pallor, blurring of vision, headaches and a convulsion. Approximately 18 months previously she began passing red blood in the urine. This was present almost constantly and was unaccompanied by dysuria, nocturia, urgency, frequency or edema. After six months she consulted a urologist who cystoscoped her and removed (or cauterized?) a urethral carbuncle. Hematuria stopped, but recurred again after six weeks and continued intermittently up to the time of admission. However, medical advice was not sought.

Past History: Six months before admission the patient began to experience sharp epigastric pain, coming on either just before or after meals, associated with anorexia but not nausea or vomiting. About the same time parieto-occipital headaches made their appearance. Two months ago blurring of vision and spots before the eyes were noted. An optician provided glasses, but these did not alter vision. Three weeks before admission nausea and vomiting developed and continued unabated. Because of these symptoms she was referred to the Hospital for X-ray studies. The X-ray report was as follows: "Skull: no fracture, bone disease or bone changes. Sella turcica normal. No calcifications in brain area. Preliminary film of the abdomen reveals no abnormal gas pockets and no urinary stones. The kidney outlines are not distinctly visible, but the right kidney appears markedly smaller than the left. There is a marked spasm of the pyloric end of the stomach. There is a fair six-hour gastric residue. There is no delay or obstruction in the small bowel or in the colon". Shortly after this the patient developed a series of generalized convulsions, became delirious and was admitted to the hospital. Review of past history revealed no other significant findings.

Physical Examination: Temperature 99; pulse 120; respiration 18; blood pressure 230/160. The patient was an acutely ill, delirious, dehydrated, pale girl lying flat in bed. The skin was dry and pale with several ecchymotic areas over the flank and lower abdomen. Examination of eye grounds revealed papilledema, fresh hemorrhages and exudate, narrowing and obliteration of arteries. Her lips and tongue were dry, and her gums pale. Her pharynx was covered with mucopurulent material. Her neck was supple and her chest symmetrical. Breath sounds were vesicular with occasional rales at both bases. There was no impairment of percussion. The heart was enlarged to the left anterior axillary line, with P.M.I. in 5th interspace. A systolic thrust was present at the apex, with a systolic murmur. The abdomen was moderately distended and was

held somewhat rigidly. The patient resisted palpation, apparently because of tenderness, particularly in the lower abdomen. Liver, spleen or kidneys could not be felt. External genitalia were normal except for the presence of a tender papule just below the urethral orifice. Rectal and vaginal examinations were negative. Neurological examination was negative except for diminished tendon reflexes.

Laboratory Data: 4-24: BUN 86 mgm per cent; CO₂ C.P. 56 volumes per cent. 4-27: BUN 62 mgm per cent; CO₂ C.P. 31 volumes per cent; serum protein 5.80 mgm per cent. Creatinine 6.0 mgm per cent; uric acid 8.3 mgm per cent; phosphorus 7.2 mgm per cent; calcium 8.6 mgm per cent; Blood Wassermann and Kahn —0. 4-25: Urine culture: B coli; non-hem. strep. 4-26: Urine culture: B coli; non-hem. strep. 4-24: Lumbar puncture: I.P. 180 mm. H₂O, clear, no cells, total protein 95 mgm per cent; Wassermann —0. 4-25: Hgb —6.0 gm., RBC 2.19 million; WBC 26,000; PMN 84 per cent, Lymph. 16 per cent. Urine (cath. spect.) 4-24: amber, alb. +++, many WBC and RBC, guaiac +++; 4-26: amber, pH 4.5, alb. +++, 25 RBC/h.p.f., 25 WBC/h.p.f.

Course: The patient's course was characterized by increasing delirium. Although fluids were given by mouth and parenterally (1300-5000 cc. q.d.) she had persistent oliguria, averaging about 60 cc. q.d. (by catheter). Rales appeared at both lung bases. The abdomen became more distended, tympanitic and diffusely tender. This was not relieved by retention enemata. She had no bowel movement until the 4th hospital day when she passed a brown liquid stool which was guaiac-positive, and vomited "coffee grounds" material. The temperature began to rise, reaching 103°, and that evening she vomited 1700 cc. of dark reddish black fluid with a fecal odor (4+ guaiac) and immediately after that she expired.

The occurrence of uremia and hypertension in a young individual with no striking evidence of cardiac failure favored a diagnosis of primary kidney disease. At this age the conditions which must be considered are pyelonephritis, congenital anomalies of the kidney and essential hypertension in the malignant phase, although the last is not unusual. On the basis of the laboratory work, there was no way to differentiate between chronic glomerulonephritis and chronic pyelonephritis except for the urine cultures, which twice showed the same organism. With the X-ray evidence of a small kidney on the right together with the finding of organisms in the urine it was thought that this case was one of pyelonephritis superimposed on a congenitally small kidney. The terminal intestinal event was rather characteristic of uremic enteritis with paralytic ileus. The final clinical diagnoses were: pyelonephritis superimposed upon a congenitally small kidney; uremia; hypertensive encephalopathy; severe gastroenteritis; paralytic ileus; bronchopneumonia.

Necropsy (N-43-176) was performed eleven hours after death by Doctor Ralph Fuller. The

This is the sixteenth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati, College of Medicine.

*The authors represent respectively the Departments of Medicine and Pathology of Cincinnati General Hospital.

most significant gross and microscopic findings were as follows: bilateral chronic pyelonephritis with marked contracture of the right kidney; widespread arteriolar necrosis, especially marked in the wall of the alimentary tract; extensive membranous and ulcerative esophagitis, gastritis, and enteritis with focal extension to the peritoneum; fibrinous peritonitis; marked distension of the gastroenteric tract (inhibitory ileus); acute mesenteric lymphadenitis; scattered foci of non-specific acute arteritis and phlebitis, and thrombo-phlebitis occasionally partially organized (suprarenal, gall bladder, pancreas and mesentery); moderate generalized arteriolar atherosclerosis; myocardial hypertrophy; acute bronchitis and early lobular pneumonia; pulmonary edema; moderate bilateral hydrothorax; acute passive congestion of the viscera. The cranial cavity was not explored.

The right kidney weighed 40 grams. The capsule was adherent to the finely granular, cortical surface. There was marked relative increase in the size of the renal pelvis as compared to the space occupied by the cortex and pyramids. The pelvic mucosa was slightly thickened and dotted with numerous petechial hemorrhages. The thick-walled ureter was of normal caliber. The right renal artery was of slightly narrower caliber than the left. Microscopically, there was widespread fibrosis involving the various parts of most renal units. The interstitial tissue was heavily infiltrated with lymphocytes. Some of the remaining tubules contained pus and there was active pyelitis. Some of the arterioles were necrotic, others showed various stages of sclerosis. Numerous hyalin and colloid casts filled the lumina of degenerating tubules in the cortex, and there was some concentric pericapsular glomerular fibrosis.

The left kidney weighed 190 grams. The capsule stripped readily from the slightly pebbled cortex which was mottled with pale yellow areas against a darker hued background and dotted with occasional red petechial flecks. The usual markings on the cut surfaces were obliterated, there being no sharp demarcation between cortex and medulla. The renal pelvis was not dilated but the mucosa was slightly thickened, and contained scattered petechial hemorrhages. The ureter appeared normal. Microscopically, the sections from this kidney presented glomerular and arteriolar necrosis. There were groups of dilated renal tubules alternating with areas of atrophy, fibrosis and active chronic inflammation. There also was active chronic pyelitis which could be seen extending up into some of the pyramids. The bladder presented evidence of chronic cystitis.

There was focal arteriolar sclerosis and widespread arteriolar necrosis throughout the markedly dilated alimentary tract with extensive ulceration of the mucosa in the esophagus, stomach and intestines. In some areas the inflammatory process extended through the wall of the intestine producing fibrinous peritonitis, which was most marked in the lower abdominal quadrant and in the pelvis.

There was moderate focal arteriolar sclerosis and arteriolar necrosis in most of the viscera. The small arteries and veins of several organs presented inflammatory changes of variable appearances. In some the process resembled so-called proliferative endarteritis. In others there was focal necrosis of the vessel walls and even some granulomatous regions in the adventitia. Al-

though periarteritis nodosa was considered, the lesions were not typical in that the necrosis was not of the fibrinoid character, no eosinophilic leukocytes were found, and the lesions were frequently of a proliferative character in the intima rather than being of the necrotizing panarteritic type usually seen in periarteritis nodosa. A few veins presented partially organized thrombo-phlebitis.

The heart weighed 465 grams, the thickness of the left ventricle being 23 m.m. No other departures from normal were found in the heart. The lungs were edematous and presented early lobular pneumonia. There were about 250 cc. of clear fluid in each pleural cavity.

COMMENT

The very small size of the right kidney suggests the possibility of congenital hypoplasia having preceded the development of pyelonephritis. Although there was slight discrepancy in size of the renal arteries this does not prove lesion to be other than of acquired type, since pyelonephritis which begins as a unilateral lesion during the developmental period of life may lead to variation in the size of the kidneys and their vessels in the terminal atrophic stage of the disease.

That pyelonephritis may produce marked decrease in renal size, and that it may lead to hypertension and subsequent secondary vascular changes, has been emphasized by Weiss and Parker. This may be especially true when the lesion occurs prior to adolescence. The extensive arteriolar necrosis was considered to be that described by Goldblatt and Kahn as being caused by a combination of hypertension and renal insufficiency.

Cases of arteriolar disease in the alimentary tract leading to extensive ulceration possibly by decreasing the resistance of the mucosa to infection by the organisms in the lumen, were described in 1931 by Zeek and Phair.

The nature of the inflammatory lesions in the small arteries and veins is uncertain. They may possibly be on the same etiological basis as the arteriolar necrosis.

SUMMARY

In this case the sequence of events was probably as follows; chronic pyelonephritis, possibly superimposed upon unilateral congenital renal hypoplasia, led to renal ischemia and hypertension. Renal insufficiency and hypertension at first developed slowly, accompanied by myocardial hypertrophy. Suddenly, the pathological processes became accelerated; the blood pressure became markedly elevated and the syndrome of malignant hypertension ensued. Arteriolar necrosis occurred, and this lesion in the alimentary tract led to ulceration and peritonitis. This led to inhibitory ileus, shock (pulmonary edema and acute passive congestion of the viscera) and death.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

THE FAMILY PHYSICIAN HOLDS THE ACE CARD

Increasingly, family physicians may expect to see numbers of men and women who have been told that they have tuberculosis and referred to their own doctors for advice, treatment or further study.

Cases reaching the doctor through these channels of reference fall into several groups:

1. **Active tuberculosis:** This is the simplest, perhaps, as these people need prompt sanatorium care, possibly collapse therapy as well. Repetition of the X-ray may be unnecessary, if the diagnosis is clear-cut. Three necessary steps include; reporting the case, arranging for admission to a sanatorium and examining by X-ray all household contacts. It should be emphasized, however, that diagnosis and reporting tuberculosis solely on the basis of X-ray evidence can result in serious errors.

2. **Suspected tuberculosis:** In the light of an X-ray opinion this usually means that the roentgenologist has seen a small hazy or infiltrative shadow but is not sure enough of its presence or significance to label it pulmonary tuberculosis. Invariably these patients need another film. Improved technic may be sufficient to settle the question. Disappearance of the suspicious lesion may indicate it was of acute pneumonitic origin. Generally, however, this new film—since the original is rarely available—becomes the first of a progress series by means of which a suspicious area is to be observed. Symptoms and physical signs are more likely to be lacking than elicited in such early cases. Exhaustive clinical and laboratory study is indicated. While a sputum or gastric sediment containing tubercle bacilli is sometimes found and is clinching evidence of tuberculosis when confirmed by culture or animal inoculation such things as a shift in the differential leukocyte count, accelerated red blood cell sedimentation rate and slight rise in temperature late in the day are of confirmatory value only, as they are not specific for tuberculosis, nor is their absence proof that a lesion is either non-tuberculosis or inactive. Most valuable aid in following and evaluating all such cases is the procedure of serial X-ray filming at appropriate intervals.

3. **Inactive or healed tuberculosis:** Most of the measures advocated for Group 2 above apply with equal force to this third category. An initial film is always advisable and full study and periodic filming is essential whenever there is the slightest

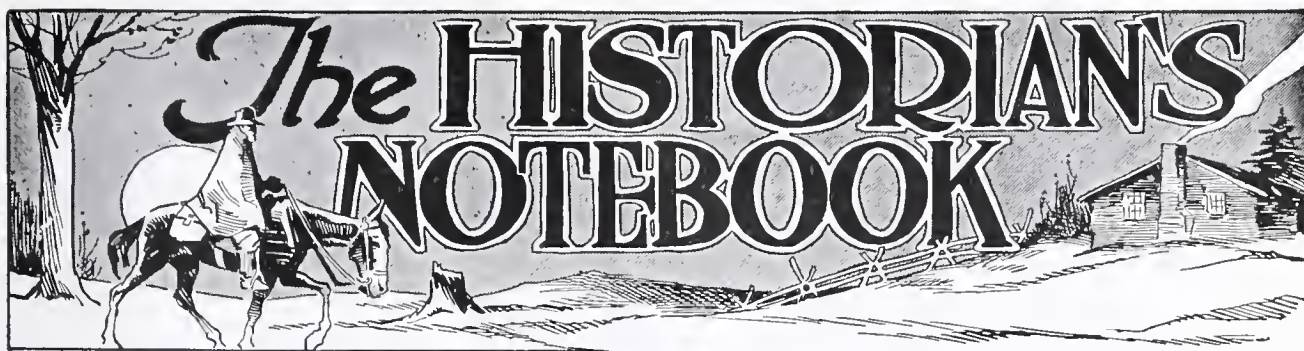
doubt about the true status of the lesion, especially in young subjects or where a lesion is beyond the minimal limit. It should be recalled that the classification of minimal, moderately advanced or far advanced refers solely to the extent of the involvement, not to the activity of the process. Physicians should acquaint themselves with the groupings of patients according to clinical status as set forth in "Diagnostic Standards," published by the National Tuberculosis Association. However, it must be realized that no such exact classification as apparently cured, arrested, apparently arrested, inactive and active can or should be attempted from examination of a single X-ray film. Even to try to grade cases as active or inactive on such a basis leads to many errors, although the visualization of cavities allows no question that activity is present.

4. **Primary phase tuberculosis:** This diagnosis is common but clinically not important in adults. Rarely is it active, usually being of the calcified primary complex type. Nevertheless, it is essential that the physician make certain his case is clearly in this category before so dismissing it.

5. **Pleurisy with effusion:** This is rarely discovered in mass surveys. Evidence of old attacks commonly shows up, but means little if none has occurred within five years.

6. **Non-tuberculous condition:** These are fairly frequently encountered. A few may be mistaken for tuberculosis, but careful study will usually reveal the true nature of shadows caused by such conditions as atypical pneumonia, bronchiectasis, atelectasis, suppurative lung abscess, lymphoma, sarcoid, cystic disease of the lung and primary or metastatic lung cancer. Emphysema, generalized pulmonary fibrosis and spontaneous pneumothorax should not be too difficult of recognition. Abnormal cardiac silhouettes often give the clue to unsuspected heart lesions, while developmental anomalies of visceral or skeletal nature are of passing interest.

It is highly important that private practitioners make the early diagnosis that confers greatest benefit on the patient, his family and the community. Unfortunately, sanatorium records show that the proportion of far-advanced cases admitted for the first time has not yet declined, nor has the proportion of minimal cases risen, in spite of the wider use of X-ray.—Philip E. Sartwell, M.D.; *New England Jour. of Med.*, June 3, 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Five Year Review of The Work of The Ohio Committee On Medical History and Archives

ROBERT G. PATERSON, PH.D., Secretary, Columbus, Ohio

MATERIAL presented in this issue of the Quarterly¹ by the Ohio Committee on Medical History and Archives represents five continuous years of effort on the part of a small group of men throughout the State to mirror forth the significant contributions of men and events to the development of medicine in Ohio. The title of the series is "Ohio Medical History, 1835-1858—Further Aspects".

The origin of the Committee is explained by Dr. Jonathan Forman, Chairman, as follows:

"On September 27, 1937, a memorandum proposing such a Committee was submitted by Dr. Paterson, executive secretary of the Ohio Public Health Association. The matter was then taken up with Secretary Harlow B. Lindley of the Ohio State Archaeological and Historical Society. On October 26, the Board of Trustees of the Ohio State Archaeological and Historical Society approved the plan and authorized the appointment of Dr. Forman as chairman and Dr. Lindley as Secretary² with power to enlarge the Committee as events dictated".

Approval by the Council of the Ohio State Medical Association and the Executive Committee of the Ohio Public Health Association was received in December, 1937.

On May 12, 1938, the first formal meeting of the Committee was held at Columbus in connection with the annual meeting of the Ohio State Medical Association.

Annual meetings have been held since in conjunction with those of the Ohio State Archaeological and Historical Society. These have been April 7, 1939; April 5, 1940; April 4, 1941; April 1, 1942. No meeting was held in 1943 owing to the restrictions placed on travel due to war conditions.

The first session papers are found in the April-July, 1939, number of the Ohio State Archaeological and Historical Quarterly, volume 48, number 3, and cover 175 pages. This series is under the title—"The Pioneer Physicians of Ohio: Their Lives and Their Contributions to the Development of the State, 1788-1835". Papers were presented by Howard Dittrick, M.D., Cleveland; Jonathan Forman, M.D., Columbus; Edward C. Mills, D.D.S., Columbus; Robert G. Paterson, Ph.D., Columbus; Donald D. Shira, M.D., Columbus; David A. Tucker, M.D., Cincinnati; James J. Tyler, M.D., Warren; and Frederick C. Waite, Ph.D., Cleveland.

The second session papers are found in the October-December 1940 number of the Quarterly, volume 49, number 4, and cover 82 pages. The title of the series is—"Ohio Medical History of the Period 1835-1858". Papers were presented by Howard Dittrick, M.D., Cleveland; Jonathan Forman, M.D., Columbus; Lucy Stone Hertzog, M.D., Chardon; Edward C. Mills, D.D.S., Columbus; Robert G. Paterson, Ph.D., Columbus; Donald D. Shira, M.D., Columbus; David A. Tucker, M.D., Cincinnati; and Frederick C. Waite, Ph.D., Cleveland.

The third session papers are found in the October-December, 1941, number of the Quarterly, volume 50, number 4, and cover 78 pages. The title of the series is—"Ohio Medical History of the Period 1835-1858". Papers were presented by: Anne L. Austin, R.N., Cleveland; George M. Curtis, M.D., Columbus; Howard Dittrick, M.D., Cleveland; Jonathan Forman, M.D., Columbus; Philip D. Jordan, Ph.D., Oxford; Robert G. Paterson, Ph.D., Columbus; and Donald D. Shira, M.D., Columbus.

The fourth session papers are found in the October-December, 1942, number of the Quar-

1. The Ohio State Archaeological and Historical Quarterly, Columbus, O.

2. Dr. Paterson was appointed Secretary of the Committee in 1939.

terly, volume 51, number 4, cover 73 pages. The title of the series is—"Ohio Medical History, 1835-1858. Further Aspects". Papers were presented by Jonathan Forman, M.D., Columbus; Leon Goldman, M.D., Cincinnati; Russell L. Haden, M.D., Cleveland; Philip D. Jordan, Ph.D., Oxford; Edward C. Mills, D.D.S., Columbus; E. W. Mitchell, M.D., Cincinnati; Ralph Taylor, M.D., Columbus; and A. E. Waller, Ph.D., Columbus.

On May 5, 1940, the Ohio Committee was elected a constituent Society of the American Association of the History of Medicine and has continued its membership to date. Dr. Howard Dittrick, Cleveland, has been our delegate to the American Association. On October 7, 1940, under the auspices of the Ohio Committee, a Fall meeting of the American Association was held in Cleveland, Ohio. Dr. Dittrick served as chairman.

Thus there has been accumulating gradually a body of orderly facts which will help to illuminate not only the trials and successes of medicine in Ohio but also the contribution made by medicine to the general social development of the State—phase of history too long neglected.

Contraception

It is likely that even before recorded time, man, under the exigency of circumstance, made efforts to limit the number of offspring. These attempts probably began when humans first became thinking anthropoids, when they realized that an additional hungry mouth would spell doom to others in the family unit. The cave couple, with periods of famine and starvation alternating with periods of plenty, used a simple solution consistent with their primitive experience. Not knowing fully the source of a new life they could not adopt means to prevent its creation.

When man became more sensitive and wise, infanticide became repugnant. As soon as he learned the coital source of a new life, under certain circumstances he took prompt steps to attempt to prevent conception. At first conception control was mainly magical, but later it became rational. The earliest medical documents extant, the Egyptian papyri, have sections devoted to contraceptives. The earliest of these, the Petri or Kahun Papyrus, written thirty-eight hundred years ago, gives three prescriptions. The first consists of crocodiles' dung mixed with a pastelike vehicle, and is probably a pessary for vaginal insertion. In the second the vagina is plugged or irrigated with honey and natron, a native sodium carbonate. The third mentions a gumlike substance for insertion in the vagina.—Alan F. Guttmacher, M.D. Baltimore, Md; W. Va. Med. Jour., Vol. 39, No. 9, September, 1943.

Vesalius Exhibit

In commemoration of the quartercentenary of the founding of modern anatomy by Andreas Vesalius, an exhibit has been arranged in the display cases and on a near-by table in the reading room of the Cleveland Medical Library Association. This exhibit was prepared by the staff of the Cleveland Branch of the Army Medical Library, and the books are largely from its collection; but they include two important items from the collection of the Cleveland Medical Library Association. These are the copy of the second edition of the *Fabrica* (1555) presented to the Association in 1893 by Dr. Howard A. Kelly (who died in January of the present year); and a copy of the first edition of Geminus's compendium plagiarized from Vesalius in 1545.

All of Vesalius's works are represented in the exhibit, though not in every case by first editions. In the following list, the date of the first edition is given, and when this is not the edition included in the exhibit, the date of the edition included is given in parentheses.

1. Paraphrase of book nine of the *Almancor* of Rhasis. Louvain, 1537. (Basel, 1537.)
2. Revision of the anatomy textbook of his former teacher John Winter of Andernach. Venice, 1538. (1585.)
3. Anatomical Tables. Venice, 1538. (Maxwell facsimile, 1874.)
4. Epistle on blood-letting in pleurisy. Basel, 1539.
5. Contributions to the Juntine edition of Galen in Latin translation. Venice, 1541. (Vesalius revised the translations of Galen's works on the dissection of nerves, veins, and arteries, and on anatomical procedure.)
6. First edition of the *Fabrica*. Basel, 1543.
7. First edition of the *Epitome*. Basel, 1543.
8. German version of the *Epitome*. Basel, 1543.
9. *China Root Epistle*. Basel, 1546.
10. Second edition of the *Fabrica*. Basel, 1555. (Two copies.)
11. *Examination of Fallopio's Anatomical Observations*. Venice, 1564.

Besides these, there are two copies of the Geminus compendium, London, 1545; the first edition of *Fallopio's Observations*, Venice, 1561; a copy of the attack on Vesalius by his former teacher Jacques Dubois (1551, represented by 1635 reprint); and a copy of the rare Murr reprint (1790) of Servetus's *Christianismi restitutio* (1553), for which he was burned at the stake in Calvin's Geneva, and which contains the earliest account of the pulmonary circulation, perhaps arrived at when he was Vesalius's fellow-prosector at Paris about 1536.

Change in Recruiting of Medical Officers Will Depend on Outcome of Scrap Over Induction of Fathers

PROCEDURES for the recruiting of additional medical officers in Ohio, as outlined in the September issue of *The Journal*, were still in effect as this issue went to press. Representatives of the Army and Navy officers procurement services were interviewing physicians certified as available by the Ohio Procurement and Assignment Committee. A report from those agencies reveals that the results of their efforts have been disappointing and that Ohio is still lagging in supplying its share of the additional thousands of medical officers needed by the armed forces between now and the end of the year.

What program will be followed in the immediate future will depend on the outcome of the current controversy between a bloc of Congressmen on one hand and the Army, Navy and Selective Service System on the other with respect to induction of fathers into the armed forces.

BATTLE ON IN CONGRESS

The Selective Service System announced some weeks ago that on October 1 the induction of fathers would be authorized. As this issue went to press, the Congress had under consideration proposed legislation which would prohibit the induction of fathers indefinitely, or until the need for such action could be proven to the satisfaction of the Congress. Press reports indicated that reverses suffered by the American troops in Italy and opinions expressed by the President lent considerable weight to the views of the Selective Service System that the induction of fathers is imperative and should be carried out as contemplated.

The names of available Ohio physicians who have not applied for a commission after being interviewed by representatives of the Army and Navy procurement offices have been transmitted to the Director of the Ohio Selective Service System for any action which that headquarters may care, and can, take under the Selective Service Act and regulations. If the induction of fathers is started, a married physician with children may be considered for induction by his local selective service board if it decides that he is available for military service by reason of the fact that the medical and health services and facilities of the community can be manned by physicians not eligible for military duty by reason of age or physical disability. It is expected that the advice of and classification given to physicians by the Procurement and Assignment Committee will be seriously considered by individual boards.

NEED FOR OFFICERS ACUTE

One Army official in commenting recently on the situation with respect to medical officers

made this pertinent statement: "The acute need of the armed forces for additional medical personnel should not be minimized. The need is real. If the number of additional medical officers needed can not be obtained through voluntary recruiting methods, I am confident that compulsory methods will be applied."

Since the last issue of *The Journal* went to press, the names of 41 Ohio physicians have been added to the roster of those in military service or in full-time Federal service for the duration. The total number of Ohio physicians on the roster as of September 21 was 2,634, divided as follows: Army, 2,276; Navy, 302; others, 56.

ADDED TO MILITARY ROSTER

Name	City	Rank
Anderson, Gilbert I.	Cleveland.....	1st Lt., U.S.A.
Barr, Fredk. G.	Dayton	1st Lt., U.S.A.
Blondis, Robert R.	Shaker Heights.....	1st Lt., U.S.A.
Breneman, Roscoe H.	Akron.....	1st Lt., U.S.A.
Cocrel, Wm. A.	Wyoming.....	Capt., U.S.A.
Dickie, John D.	Toledo.....	Capt., U.S.A.
Earle, Lawrence B.	Cincinnati.....	1st Lt., U.S.A.
Essig, Joel A.	Cincinnati.....	1st Lt., U.S.A.
Ewing, J. W.	Akron.....	1st Lt., U.S.A.
Flax, Ellis	Cincinnati.....	1st Lt., U.S.A.
Flynn, Wm. J.	Cleveland.....	1st Lt., U.S.A.
Friedman, Alvin B.	Cleveland.....	1st Lt., U.S.A.
Green, Robert P.	Akron.....	1st Lt., U.S.A.
Gugle, Lloyd J.	Cleveland.....	1st Lt., U.S.A.
Harnick, Manning C.	Middleport.....	1st Lt., U.S.A.
Hildebrand, Howard H.	Cleveland.....	Lt. (j.g) U.S.N.
Hines, Robert B.	Barnesville.....	1st Lt., U.S.A.
Hunter, Curwood R.	Cincinnati.....	1st Lt., U.S.A.
Hunter, John A., Jr.	Cleveland.....	1st Lt., U.S.A.
Jackson, Carl R.	Chillicothe.....	Capt., U.S.A.
Kirk, Gilman D.	Columbus.....	Capt., U.S.A.
Krichbaum, Wm. Thomas	North Canton.....	1st Lt., U.S.A.
Lewis, Norman	Cleveland.....	1st Lt., U.S.A.
Morgan, James Edw.	East Cleveland.....	Capt., U.S.A.
Muckley, James M.	Akron.....	1st Lt., U.S.A.
Phillips, Ralph Lewis	Columbus.....	1st Lt., U.S.A.
Pierce, Robert R.	Cincinnati.....	Capt., U.S.A.
Pollock, James H.	Columbus.....	1st Lt., U.S.A.
Prugh, Reed C.	Dayton.....	1st Lt., U.S.A.
Redman, W. C.	Cincinnati.....	Asst. Surgeon, USPHS
Reeder, Paul A.	Barnesville.....	Capt., U.S.A.
Robinson, John S.	Cleveland.....	1st Lt., U.S.A.
Roemer, Alvin H.	Greenhills.....	Asst. Surgeon, USPHS
Rogoff, Robert	Cleveland.....	1st Lt., U.S.A.
Rowles, Donald F.	Columbus.....	1st Lt., U.S.A.
Schilling, Carl F.	Cincinnati.....	1st Lt., U.S.A.
Searle, Clark P.	Wyoming.....	1st Lt., U.S.A.
Stelzner, Glenn W.	Newcomertown.....	1st Lt., U.S.A.
Ulrich, Robert P.	Orrville.....	1st Lt., U.S.A.
Voskamp, Jack R.	Cleveland Heights.....	1st Lt., U.S.A.
Wade, Reynolds W.	Toledo.....	1st Lt., U.S.A.

WIN PROMOTIONS

Althoff, Wm. R.	Dayton.....	Major, U.S.A.
Apple, James D.	Dayton.....	Capt., U.S.A.
Arons, Abraham	Cleveland.....	Capt., U.S.A.
Bly, Frank H.	Akron.....	Major, U.S.A.
Brewer, Russell M.	Lebanon.....	Major, U.S.A.
Coombs, Fredk. S.	Youngstown.....	Major, U.S.A.
Denning, Francis J.	Steubenville.....	Capt., U.S.A.
Diller, W. E.	Rawson.....	Capt., U.S.A.
Donley, Robert F.	Columbus.....	Major, U.S.A.
Fink, Abraham A.	Toledo.....	Capt., U.S.A.
Frankc, Wm. J.	Akron.....	Capt., U.S.A.
Gall, Edward A.	Cincinnati.....	Major, U.S.A.
Glorioso, John A.	Lima.....	Capt., U.S.A.
Goff, Wylvanus W.	Akron.....	Capt., U.S.A.

Name	City	Rank
Hagen, John S., Jr.	Cincinnati.....	Capt., U.S.A.
Hanson, Kenneth B.	Cincinnati.....	Major, U.S.A.
Hirst, David L.	Miamisburg.....	Capt., U.S.A.
Ipp, Herman H.	Youngstown.....	Major, U.S.A.
Johnston, Wm. McK.	Akron.....	Comdr., U.S.N.
Kackley, D. D.	Columbus.....	Capt., U.S.A.
Lester, Louis J.	Cleveland.....	Capt., U.S.A.
Marsico, Henry C.	Lorain.....	Capt., U.S.A.
Muter, Clyde W.	Warren.....	Capt., U.S.A.
Ormond, A. C.	Zanesville.....	Major, U.S.A.
Pilmer, Gordon A.	Springfield.....	Capt., U.S.A.
Plymale, John L.	Marion.....	Major, U.S.A.
Rardin, Thomas E.	Columbus.....	Capt., U.S.A.
Roberts, David J.	Akron.....	Capt., U.S.A.
Ross, Paul S.	Columbus.....	Capt., U.S.A.
Ruch, Ralph O.	Lima.....	Major, USPHS
Russell, Wm. E.	Genoa.....	Capt., U.S.A.
Sawyer, Benjamin	North Star.....	Capt., U.S.A.
Schork, R. J.	Elyria.....	Major, U.S.A.
Smith, Corwin A.	Dayton.....	Lt. Col., U.S.A.
Smith, Paul E.	Canton.....	Capt., U.S.A.
Sparks, E. P., Jr.	Sidney.....	Capt., U.S.A.
Stuhlman, Byron C.	Dayton.....	Capt., U.S.A.
Surdyk, Jerome S.	Dayton.....	Capt., U.S.A.
Tecklenberg, Roger L.	Lima.....	Capt., U.S.A.
Tucker, Thomas	Cincinnati.....	Lt., U.S.N.
Weaver, Thomas A.	Cincinnati.....	Major, U.S.A.
Wiessinger, Russell L.	Sidney.....	Capt., U.S.A.
Wilcox, Abbott Y.	Cincinnati.....	Major, U.S.A.
Wyker, A. C.	Bucyrus.....	Capt., U.S.A.

TABULATION BY COUNTIES

Adams	2	Guernsey	6	Muskingum ..	7
Allen	38	Hamilton	381	Noble	1
Ashland	11	Hancock	13	Ottawa	8
Ashtabula	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	4
Belmont	12	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	27	Holmes	2	Preble	7
Carroll	1	Huron	15	Putnam	5
Champaign	8	Jackson	1	Richland	39
Clark	31	Jefferson	31	Ross	22
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	17	Scioto	19
Columbiana	11	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	9	Stark	92
Cuyahoga	642	Lorain	35	Summit	140
Darke	6	Lucas	151	Trumbull	29
Defiance	4	Madison	6	Tuscarawas ..	19
Delaware	5	Mahoning	106	Union	2
Erie	10	Marion	16	Van Wert	9
Fairfield	9	Medina	13	Vinton	2
Fayette	2	Meigs	3	Warren	4
Franklin	215	Mercer	6	Washington ..	6
Fulton	6	Miami	13	Wayne	13
Gallia	5	Monroe	1	Williams	8
Geauga	4	Montgomery ..	126	Wood	15
Greene	8	Morgan	4	Wyandot	2
Total					2634

Plans Developing for Sessions of Military Surgeons

Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, will serve as honorary chairman for the 51st annual convention of the Association of Military Surgeons of the United States to be held in Philadelphia, October 21, 22 and 23. Captain Joseph A. Biello, District Medical Officer of the Fourth Naval District, will act as general chairman, with Brigadier General George F. Lull, Army Medical Corps, and Commander Edward L. Bortz, Navy Medical Corps, as vice chairmen.

A symposium on war medicine, which will chart the progress and the recent advances made in the care and hospitalization of men in the armed forces, will highlight the three-day meeting in Bellevue Stratford Hotel.

Wartime Postgraduate Clinic Is Held at Patterson Field

"A Wartime Postgraduate Clinic" was held at the Station Hospital, Patterson Field, Fairfield, Thursday, September 9. This, the first at the field, was one of the postgraduate meetings for medical officers sponsored by the American Medical Association, the American College of Physicians, and the American College of Surgeons, and approved by the Surgeons General of the Army, Navy and Public Health Service, and the Air Surgeon. The program was arranged with the assistance of Dr. C. A. Doan, professor of medicine, Ohio State University College of Medicine, regional director of Wartime Graduate Medical Meetings.

After an address of welcome by Lt. Col. E. Hakala, commanding officer of the Station Hospital, the morning session included the following case presentations: "Cardiospasm; Diagnosis and Treatment", Lt. Col. W. H. Craddock; "Ruptured Ulcer in a Soldier 19 years of Age", Major H. M. Kirschbaum; "Carcinoma of the Stomach", Capt. A. B. Schneider, Jr. Dr. Leon Schiff, associate professor of medicine, University of Cincinnati College of Medicine, spoke on "Hematemesis and Melena", and Dr. Max M. Zininger, associate professor of surgery at the University of Cincinnati, discussed "Surgery of Peptic Ulcer". The afternoon was devoted to round-table discussions led by Dr. Schiff, Dr. Zininger, Maj. Riggs and Capt. Schneider.

Licensed by Endorsement

The following physicians have been licensed to practice medicine and surgery in Ohio by the State Medical Board through endorsement of their licenses to practice in other states; Charles J. Centa, Cleveland; Raymond H. Kahn, Dayton; James J. Karam, Canton; Frederick Wm. Kayser, Toledo, and William J. McGannon, Lakewood, St. Louis University; Mark S. Donovan, Toledo, and Helen M. Thompson, Cleveland, University of Michigan; Walter H. Camp, Dayton, University of Buffalo; Herbert P. Hargett, Springfield, University of Louisville; Winthrop R. Hubler, Cleveland, Northwestern University; Royal D. Keene, Steubenville, Meharry Medical College; Roger R. Lough, Cleveland, Syracuse University; John M. McIver, Cleveland, Boston University; Ernest J. Marshall, Jr., Canton, Meharry Medical College; Grace E. Moulder, Cincinnati, University of Tennessee; Clarence A. Ranker, Youngstown, University of Chicago; Monroe J. Tanner, Kings Mills, Tufts Medical College; Fred O. Tonney, Toledo, Loyola University; George D. Popoff, Canton, Karl-Franzens University, Graz, Austria.

Applications Totalling 3,778 are Filed Under Maternity and Infant Care Program; Questions and Answers About Provisions and Procedures Are Presented

AS OF SEPTEMBER 20 a total of 3,778 applications for services under the provisions of the Ohio Emergency Maternity and Infant Care Program for wives and infants of enlisted men, financed by and administered under regulations laid down by the U.S. Children's Bureau had been filed with the Ohio Department of Health.

The large majority of the applications are for maternity care. Approximately 1,500 physicians have signed forms requesting authorization to render service.

Up to the present time Ohio has been allotted \$196,000 by the Children's Bureau. This amount, according to Dr. R. H. Markwith, state director of health, will not be sufficient to meet medical and hospital expenses which would be incurred if all pending applications are approved and the services authorized. Dr. Markwith has requested the bureau to provide Ohio with more money, pointing out that he can not make additional authorizations until funds are in hand and can be earmarked for authorized services. Up to September 20, a total of 1,910 applications had been authorized. Additional authorizations will not be made until more money is made available.

MORE FUNDS NEEDED

It has been reported that the original appropriation of \$4,400,000 to the Children's Bureau for financing this program in the various states has been exhausted, or will be in the near future, and that the bureau expects to request the Congress for a supplemental appropriation. One source intimated that a deficiency appropriation amounting to \$18,000,000 would be requested.

Since the Ohio program went into effect on August 12, many questions about the provisions of the plan and administrative procedures have been submitted to the Ohio Department of Health and to the Headquarters Office of the Ohio State Medical Association. Following are some of the more important questions which have been asked and answers to them, based on the provisions set forth in the plan and on interpretations made by the department of health:

QUESTIONS AND ANSWERS

Q. Who is eligible to receive the benefits of the program?

A. Wives and sick infants (under one year of age) of enlisted men including the first seven grades, regardless of legal residence or financial status. However, wives of men in the first three

pay grades will be required to provide the following statement on form MCH-7 provided for this purpose: "My present financial and personal circumstances have made it necessary for me to request care for myself (or child) as provided by the Emergency Maternity and Infant Care Program."

Q. How does a woman prove she is eligible to the benefits of the program?

A. By showing her physician papers on which her husband's name and service serial number appear so the physician can verify the serial number appearing on the application form with the serial number appearing on the official papers.

Q. When did the program become effective in Ohio?

A. At 12:01 A.M. on August 12, 1943. The program can not become retroactive prior to the date the application for services is signed and funds can not be provided for services, nor for reimbursement of financial obligations which have been incurred prior to the date the application is signed. Wives of enlisted men who are in immediate need of financial assistance should address a communication to: Army Emergency Relief Officer, Fifth Service Command, 625 Huntington Bank Building, Columbus, Ohio, or to the officer-in-charge of a similar agency of the Navy.

Q. How does a wife or mother make application for the services provided by the program?

A. An official application form MCH-1 is provided for maternity care, and form MCH-2 is provided for infant care. These forms may be secured at the office of any local health department in Ohio. The mother completes the form MCH-1 or MCH-2 depending upon whether she is requesting maternity or infant care. She then takes this form to the physician of her choice and presents evidence to the physician that she is the wife of an enlisted man, either by her allowance card, or by an envelope she has received through the mail from her husband giving his serial number. When the physician has completed the form MCH-1 or MCH-2, he will send it immediately to the Chief, Division of Child Hygiene, Ohio Department of Health, Columbus 15, Ohio, for authorization for providing care. If the form has been satisfactorily completed, and the wife is entitled to the benefits of the emergency maternity and infant care program,

a notice of official authorization will be mailed to the physician, the hospital, the mother, and the local health department, which cannot become effective prior to the date the application is signed by the mother or parent.

Q. Does a physician have to accept patients who may desire to participate in the program?

A. No. Each physician has the right to decide for himself as to whether he desires to render services to a woman wishing to participate in the program. If he does accept such a patient and signs the application for authorization to render services, the physician then is obligated to comply with all provisions of the program.

Q. What fees are paid to physicians in maternity cases?

A. A physician providing complete maternity care, including obstetrical operations and routine blood test for syphilis, will receive a fee of \$40.00, of which \$10.00 is for antepartum care, \$25.00 is for delivery, and \$5.00 for postpartum care, including an examination approximately six weeks after delivery.

Q. What does the infant program include?

A. The infant care program is only for sick infants under one year of age. It does not provide payment for routine care of well infants, such as routine physical examinations, immunizations, routine dietary supervision, etc.

Q. Are consultant services provided?

A. Qualified specialists, when called by the attending physician, may be paid a fee not to exceed \$10.00 for advice and assistance rendered the attending physician. When a qualified specialist is called by the attending physician to perform major surgery, he may be paid a fee not to exceed \$40.00. In order to provide official authorization for the specialist called by the attending physician, it is necessary for the attending physician to present a request to the Ohio Department of Health for this consultation service either on form MCH-1 (Maternity) or form MCH-2 (Infant Care) within 48 hours after the consultation, if the attending physician has not previously requested authorization for consultation.

Q. Does the program provide for medical, surgical and hospital services other than maternity care and the care of a sick infant under one year of age?

A. No. If there is immediate need of financial assistance for medical, surgical or hospital care other than maternity care for the wife or pediatric care for a sick infant under one year of age, the wife or mother should contact the local Red Cross chapter or address a communication to the Army Emergency Relief Office,

Huntington Bank Building, Columbus, or to the similar agency of the Navy.

Q. When does payment for services authorized become effective?

A. On the date the application is signed by the wife or mother, providing the application is received by the Ohio Department of Health within seven days of date on application.

Q. What fees will be paid for miscarriage?

A. The regular delivery fee of \$25.00, plus prenatal visits at \$2.00 for office visits, and \$3.00 for home visits, not to exceed \$10.00.

Q. Is a fee paid to anesthetists?

A. A fee is not paid to an anesthetist if the anesthetist is employed by a hospital on a salary, fee or commission basis. If not an employee of the hospital, a fee may be paid to the anesthetist which will be the prevailing anesthetist's fee for ward patients, with a maximum of \$10.00 for any one case.

Q. What type of surgery is provided under the emergency maternity and infant care program?

A. Surgery performed by a consultant which has a direct relationship to the pregnancy or delivery of the patient may be authorized as well as surgery by a consultant for conditions indicating major surgery in a sick infant under one year of age except orthopedic cases which are referred to the Crippled Children's Service of the Ohio Department of Public Welfare.

Q. Is care provided under the program for inflammation of the eyes of the new-born and gonorrheal ophthalmia?

A. No. Such cases are referred to the Ohio Commission for the Blind.

Q. What services is the authorized physician required to provide during the prenatal period?

A. Only those services having a direct relationship to the pregnancy. Fees for services other than those directly relating to the pregnancy should be paid by the patient.

Q. Is the attending physician expected to include circumcision without an additional fee?

A. Yes.

Q. Is the attending physician allowed an additional fee for complications occurring during delivery?

A. No. The flat fee for delivery by the attending physician covers all necessary services.

Q. If a physician is authorized to render prenatal or postpartum care under the provisions of the program, may he charge the patient direct for delivery?

A. No. If a physician receives authorization for either prenatal or delivery or postpartum

care he becomes a participant in the program and subject to the provisions of the program, one of which is that he shall not accept additional payment from the patient or her family.

Q. If a patient does not request authorization for services during the prenatal period but receives such services, may the physician rendering the services charge her direct for such services?

A. Yes. The provisions of the program do not take effect until the date the application for benefits under the program are signed by the patient. Of course, in such instances, no authorization for payment of prenatal fees under the program would be granted.

Q. If a patient has been going to a physician and has paid him for prenatal services received prior to the date the application for prenatal care under the program is signed, can the physician request authorization for prenatal care or complete maternity care; will payment be authorized; will he be required to refund to the patient fees which he collected prior to the time the application was signed?

A. Prenatal care or complete maternity care will be authorized if the physician provides at least five prenatal visits after the application is signed. He will not be required to refund fees collected from the patient but he can not make further charges of the patient after the application is signed.

Q. When should the attending physician submit his fee bill and case report for a maternity case?

A. After he has completed the postpartum examination, approximately six weeks after delivery.

Q. When should the attending physician submit his fee bill and case report for an infant care case?

A. Immediately after the discharge of the patient or at the end of the three-weeks authorization period if the patient is not discharged prior to that time.

Q. How may the initial authorization for medical care of a sick infant or premature infant for a period of not to exceed three weeks be extended?

A. Another MCH-2 application form must be submitted to the Ohio Department of Health, accompanied by reasons for the request. In the case of premature infants, the weight of the infant at the time the subsequent request is filed should be given.

Q. What services should be described and itemized by the physician on invoice MCH-6?

A. In a maternity case: Date of each prenatal

visit, date of delivery and date of postpartum examination. In a sick infant case: Date and place of each visit.

Q. Is authorization for maternity and infant care granted to patients, physicians and hospitals in other states?

A. Authorization will be granted only under the following conditions: (1) If the woman or infant is residing in the State of Ohio; (2) if the physician selected is permitted to practice medicine in Ohio; (3) if the hospital, in a maternity case, is a maternity hospital licensed by the Ohio Department of Health or, in the case of a sick infant, is a hospital registered with the Ohio Department of Health.

Q. Will authorization be granted to commissioned medical officers for participation under the emergency maternity and infant care program?

A. No.

Q. Will authorization for services be granted in cases of illegitimate births?

A. No.

Q. What are the provisions for hospitalization?

A. Hospitalization is provided upon the request of the attending physician on form MCH-1 or MCH-2. Only licensed maternity hospitals in Ohio may participate in this program. Hospitals are paid at ward rates on the basis of the following formula: The certified per diem operating cost of the hospital less 15%, plus 25%, with a ceiling rate of \$6.50 for mother and infant; the certified per diem rate less 15% for only the infant or mother with a ceiling of \$5.50 per day. A maximum of fourteen days of hospitalization is provided for maternity care or care of sick infant. If a patient is admitted to the hospital prior to delivery and returns to her home prior to her delivery, this will be included in the invoice and will be included in the fourteen days of hospitalization which has been authorized for this patient.

Q. Can hospital care be provided under this program when the patient or her family desires to pay the physician his fee?

A. No. The physician in signing the request for authorization for maternity or infant care agrees not to receive payment from the patient or her family for services authorized. If a physician does not desire to participate under this program, and provides a statement that he is not making a charge to the patient or her family for his services, hospitalization may be authorized under this program only in a licensed maternity hospital.

Q. If a patient cannot be admitted to the hospital which has been authorized, what procedure is followed?

A. An application on form MCH-1 will be completed by the wife and the physician, designating the name of the hospital to which the patient was admitted, and providing a statement on the application giving the reason why the patient had not been admitted to the hospital which had been authorized. This request, in order for it to be placed in line for payment, must be submitted to the Ohio Department of Health within 48 hours after the patient is admitted to the hospital.

Q. If a patient is admitted to a hospital for delivery where the staff is prohibited from accepting fees for the care of ward patients, will payment of the hospital bill be authorized?

A. Payment for hospitalization will be authorized providing the physician will make a statement on the official form requesting hospital care for this patient that he will not make a charge to the patient or her family for the services rendered.

Q. What hospitals are eligible to participate in the maternity phase of the program?

A. Only those licensed for maternity service by the Ohio Department of Health.

Q. How shall the hospital know that the applicant actually is eligible?

A. The hospital will receive an authorization from the Ohio Department of Health for each case.

Q. If patient applies directly to the hospital what should the hospital do?

A. The hospital should direct the patient to the local Health Department for an application which she then presents to the physician of her choice.

Q. How does the hospital know it will receive a patient for care?

A. In maternity cases the authorization will come to the hospital from the Ohio Department of Health, usually several months in advance of admission. In infant care cases the authorization also will come from the Department of Health, but in case of an emergency the hospital may accept the patient on word of the physician that hospital care is urgently needed. The physician must so notify the Department of Health within 48 hours after which the Department of Health will send the authorization directly to the hospital.

Q. How much is the hospital paid? By whom? When? How should the billing be handled?

A. The Children's Bureau has agreed to pay Ohio hospitals on the basis of the following

formula: The certified per diem rate of the Ohio Department of Health less 15%, (which is designed to bring the rate down to ward cost), plus 25% of that figure, (which covers the cost of care for the baby in maternity service), with a ceiling rate of \$6.50. In the case of infant care the formula is the certified per diem rate less 15%, with a ceiling of \$5.50 per day. If a hospital has nothing other than ward service the rate to be paid will be the certified per diem rate without the 15% reduction. Bills are to be submitted by the hospital to the Ohio Department of Health in triplicate, on a form which will be sent to the hospital by the Ohio Department of Health with the authorization for service. Bills will be paid by the Ohio Department of Health as quickly as possible after their receipt.

Q. Does this rate include all hospital services?

A. Yes, excepting only blood or plasma, which may be billed in addition to the per diem rate.

Q. Does the Emergency Maternity and Infant Care Program provide other than ward service?

A. No.

Q. If the patient wishes better accommodations and agrees to pay the difference between ward service and these better accommodations will the bill for ward service be paid?

A. No. The hospital agrees not to accept additional payment from the patient or her family for services authorized under the program.

Q. Suppose arrangements have been made with a certain hospital for maternity care and at the time the patient is ready for delivery the hospital has no facilities available?

A. In that event the patient may be admitted to another hospital on order of the attending physician, who must then notify the Ohio Department of Health of this change within 48 hours, and the Department of Health will then issue an authorization to the hospital in which the patient was delivered.

Q. How long may the patient be kept in a hospital?

A. The maximum authorization is for 14 days but an additional authorization will be considered if the attending physician submits reasons as to why additional hospital care is necessary. The Ohio Department of Health recommends a minimum hospitalization period of 10 days in maternity cases. This does not mean that a patient may not be discharged in less than 10 days if in the opinion of the attending physician she is well enough to leave the hospital.

Q. Can hospital service be authorized if the attending physician chooses to render only medi-

cal services during labor and postpartum period, including postpartum examination?

A. Yes.

Q. Is private duty nursing care provided?

A. When the patient is seriously ill, the attending physician may request private duty nurses who may be authorized for a period not to exceed fourteen days at prevailing rates, not to exceed \$7.00 per day including meals, for each nurse. Authorization is only provided to registered Ohio nurses.

Q. Is hourly home bedside nursing service provided?

A. Home bedside nursing service may be provided when requested by the attending physician through authorization to local visiting nurse associations at the prevailing local rate not to exceed \$1.50 for the first hour and 75c for each additional hour, for a maximum of eight visits in a fourteen day period, which will not exceed a cost of \$15.00. A registered nurse may be provided for bedside nursing care when this service is not available either in the local health department or the visiting nurse association. The fee shall be the prevailing local rate not to exceed \$2.00 for the first hour and 75c for each additional hour. If home delivery nursing service is not available, the service of a registered nurse may be authorized and will be paid at a rate not to exceed \$7.50 per case.

Q. What are the procedures for securing hourly home nursing services?

A. Home nursing services will be authorized only on the request of the attending physician on Form MCH-1 in a maternity case and Form MCH-2 in the case of a sick infant. Such services will be authorized through the local Visiting Nurse Association or the local Central Registry for Nurses. When the services are authorized, the physician will be instructed to contact the agencies mentioned. Within 48 hours after a nurse has been assigned by either agency to a maternity or infant care case, it must notify the Ohio Department of Health, giving the name and address of the nurse. When home nursing service is requested in a community which does not have a local Visiting Nurse Association or a Central Registry for Nurses, the physician on Form MCH-1 or MCH-2 must give the name and address of the registered nurse he is requesting for the case.

Q. Under what conditions are ambulance services provided?

A. Ambulance service is only provided in emergencies and in unusual cases upon the request of the attending physician on Form MCH-1

for maternity cases, and Form MCH-2 for pediatric cases.

Q. What charges are permitted for ambulance service?

A. The charges for ambulance service under this program should be the same as those made to patients being admitted to wards in hospitals. A maximum of \$10.00 is provided for ambulance service.

Q. Will an ambulance be provided for the mother if she desires to leave the hospital prior to the tenth day after delivery?

A. No. The payment for a maximum of 14 days of hospitalization has been provided for the mother and infant. If the mother desires to leave the hospital prior to the recommended 10 days hospitalization for maternity cases, it will be necessary for her family to provide the payment of the ambulance.

Q. Is the firm or company providing the ambulance notified ambulance service has been authorized?

A. Yes. Upon the request for an ambulance by the attending physician, the firm or company will be sent Form MCH-3 granting authorization, and also Form MCH-6 on which the invoice for ambulance service will be submitted to the Ohio Department of Health for payment.

Q. How will ambulance services be authorized in cases of emergencies?

A. The physician requesting an ambulance for an emergency must submit to the Chief, Division of Child Hygiene, Ohio Department of Health, an official request for such emergency ambulance service on Form MCH-1 or Form MCH-2 within 48 hours after such ambulance service is provided.

Winthrop Prepares for Increased Production of Penicillin

Winthrop Chemical Company, Inc., has announced plans for a "vast increase" in production of penicillin, a new highly concentrated extract from common cheese mold which kills bacteria and which has proved to be rapidly curative in such diseases as blood stream infection, osteomyelitis, pneumonia and gonorrhea.

Additional facilities for the manufacture of this potent drug have been acquired in Rensselaer, N.Y., according to Dr. Theodore G. Klumpp, President, and will be devoted entirely to the manufacture of the drug which is now allocated exclusively to the armed forces. The War Production Board has granted high priority ratings for needed equipment, he said, and work is proceeding at all possible speed.

Hospital Internship Shifted to Nine Months' Basis and Additional Changes Relating to Housemen Agreed Upon by Directing Board and Military Authorities

A NEW plan for allocation of hospital house staffs, involving three major changes, has been developed by the Directing Board, Procurement and Assignment Service for Physicians, Dentists and Veterinarians with the approval of the Surgeon General of the Army and Surgeon General of the Navy.

Following is an official statement released by the Directing Board and published in the September 11 issue of *The Journal of the American Medical Association*, describing the new plan and procedure:

TEXT OF OFFICIAL STATEMENT

In view of changing needs, both civilian and military, and of last year's experience in attempting an allocation of hospital house staffs, a new allocation plan has been developed. It involves three major changes.

The first of these is that internships and residencies are being changed over from a twelve to a nine month base period to remedy the difficulties inherent in a nine month medical school year and a twelve month hospital year.

The second is that certain essential commissioned men will be permitted to give some service as hospital residents, under conditions outlined here.

The third is that interns as well as residents are included in the allocation plan. One of the reasons for this change is that hospitals which have shifted from two year to one year internships have drained by approximately 1,400 the supply of interns which would in earlier years have been available to smaller hospitals.

ADVANTAGE TO HOSPITALS

This year certain hospitals have failed to cooperate with the Procurement and Assignment Service plan because of their reliance on Selective Service deferments for the maintenance of their staffs. Since Selective Service deferment of residents is rapidly becoming a thing of the past, hospitals will find it of great advantage to cooperate with the Surgeons General and the Procurement and Assignment Service in this new allocation plan, which is designed to provide an equitable distribution of the house staff members available.

SHIFT TO NINE MONTHS' BASIS

There has been general dissatisfaction with the three month overlapping of intern and resident services, which have been wasteful of urgently needed medical manpower.

To remedy this situation the Directing Board

of Procurement and Assignment Service proposed on the recommendation of its Hospital Committee that a nine-nine-nine month plan be adopted. For those men who would be commissioned the proposal was:

The internship should be reduced from twelve to nine months.

One half of the interns should be retained for a second nine months as assistant residents.

One half of that group should be retained for a third nine month period as residents.

AGREEMENT WITH SURGEONS GENERAL

This proposal has been accepted by the Surgeons General of the Army and Navy and in this modified form:

The internship shall be reduced to nine months.

One third of the interns who hold commissions in the Army and Navy may be deferred for nine months (tenth to eighteenth months).

One half of this number or one sixth of the total number of commissioned interns may be deferred for an additional nine months (nineteenth to twenty-seventh months).

Acceptance of the plan by the Surgeons General is conditional on agreement by the state boards of medical examiners that eligibility for licensure of those who receive only nine months' internship will not be impaired and with the understanding that internships shall begin within thirty days after the completion of the medical course and that hospitals will limit their appointments of interns and residents to individuals who hold commissions or who have been officially rejected for commissions in the armed forces.

(No complications will arise in Ohio as the Ohio law does not require internship as a qualification for admission to the medical board examinations.)

CLASSIFICATION OF HOUSE OFFICERS

In the interest of uniformity under this program the Procurement and Assignment Service will classify house officers as follows: interns during the first nine months, assistant residents during the second nine months and residents during the third nine months of hospital service.

The Procurement and Assignment Service believes that minimum adequate hospital medical service can be provided only if each hospital exerts every effort to obtain and retain women and physically disqualified house officers, since the number of men to be deferred by the armed services will not be adequate to meet even the minimal needs for hospital residents, and since

PHYSICIANS INTERESTED IN POSITION AS HOSPITAL HOUSE OFFICER SHOULD WRITE DR. CONARD IMMEDIATELY

There are some hospitals in Ohio which need a house physician, or several house physicians, to round out their staff. These appointments are available immediately or will be available in the near future.

These institutions have appealed to the Ohio Procurement and Assignment Committee for Physicians for assistance. That committee in turn has requested *The Journal* to publicize the needs of the hospitals for housemen.

If there are physicians in Ohio or other states who would be interested in positions as hospital house officers and they are ineligible for military service, they should communicate at once with Dr. Robert Conard, chairman of the Procurement and Assignment Committee, 1005 Hartman Theater Bldg., 15, Columbus, Ohio.

the Procurement and Assignment Service cannot assign men to house staff positions.

The over-all cut will be about one third. For the average hospital the allocation for 1944 will be somewhat less than two thirds of the 1940 number of residents and two thirds to three-fourths of the 1940 number of interns. (The 1940 figure for interns includes all physicians reported as interns by the educational number of *The Journal of the A.M.A.* regardless of the length of their appointments.)

It will be necessary in general to make proportionate cuts from 1940 in the new house staff quotas with certain adjustments for present teaching loads and pronounced shifts in patient population. The number of house staffs included in the quotas of the individual hospitals will include women physicians and all male physicians whether or not physically disqualified and whether or not commissioned. The allocation of this personnel will be primarily on the basis of the needs for civilian medical care.

CHANGE EFFECTIVE JANUARY 1

Under this plan two thirds of all commissioned interns now in hospitals will be eligible for orders to active duty on or about Jan. 1, 1944 (nine months after the beginning of their internships) and at about the time the new graduates will be beginning their internships.

In many hospitals there are residents holding commissions who have already been deferred by the Army or Navy until July 1, 1944.

On their departure certain house staffs will be reduced below the quota level for three months. For most hospitals this will come at a time of relatively low census. In cases of extreme difficulty every effort will be made by the Procurement and Assignment Service to assist the hospitals through this three month period.

All hospitals have been asked to submit immediately analyses of their present and past situations for the purpose of facilitating this allocation for 1944. Based on this information and on field studies now in progress, the Hospital Committee will complete its estimates of the total number of physicians who will be available for house staff positions in 1944. With this information the committee will set house staff quotas for each hospital and from them build state quotas. In setting tentative quotas by the Procurement and Assignment Service for individual hospitals, consideration will be given to obvious injustices which might occur in a too arbitrary application of the allocation plan.

STATE QUOTA MUST STAND

Each state will be required to remain within its total quota; that is, no requests will be granted for deferments which would bring a state total over the quota established for that state. The state chairman may find it desirable to make certain changes in hospital allotments within the limits of his total state quota. Such changes will be subject to appeal and review at the national level. State chairmen will receive requests for deferments from hospitals and transmit them to the Washington office of the Procurement and Assignment Service, which will review them and make recommendations to the Surgeons General.

A commissioned intern may move to a second hospital at the end of his nine or eighteen month service, so a hospital may ask for the service of a commissioned intern or assistant resident from another hospital for a nine month assistant residency or residency. In other words, movements of physicians on house staff shall not be discontinued or discouraged as long as the physician desires the hospital service and the hospital and state remain within their quotas.

Plans Are Completed for Meeting of Southern Medical Association in Cincinnati, November 16-18

THE Southern Medical Association will hold its Thirty-Seventh Annual Meeting at Cincinnati, Tuesday, Wednesday and Thursday, November 16-18, with the Campbell-Kenton County Medical Society of Kentucky as host and the Academy of Medicine of Cincinnati as co-host.

The first day will be devoted to general clinical sessions. It will be known as "Kentucky and Ohio Day" and the day's program will be presented by physicians from the two states.

On Wednesday and Thursday, two general sessions will meet concurrently. At one, papers will be presented from the association's sections representing the surgical specialties and at the other, papers from the sections representing the medical specialties will be given. There will be no section meetings this year.

All activities—meetings, scientific exhibits, hobby exhibits and technical exhibits will be in the three principal downtown hotels—Netherland Plaza, Gibson and Sinton—with general headquarters at the Netherland Plaza. The meeting will be devoted strictly to medical and surgical problems, with no official or formal entertainment.

The organizations which will meet conjointly with the Southern Medical Association at Cincinnati, each of which will present a program, include: American Therapeutic Society, American Academy of Pediatrics, Region 2; American College of Chest Physicians, Southern Chapter; American Society of Tropical Medicine; National Malaria Society; and American Public Health Association, Southern Branch.

Physicians who may attend the meeting are: White physicians in practice who are in good standing in their local and state medical associations; white physicians of the United States Army, Navy, Public Health Service and Veterans' Administration, teachers in medical schools, personnel of health departments, personnel of recognized hospitals, hospital residents and interns and senior and junior medical students. There is no registration fee. Additional information concerning the meeting can be obtained by addressing the Southern Medical Association, Empire Building, Birmingham 3, Alabama.

Membership on the various committees on arrangements includes the following Cincinnati physicians: Executive Committee—Dr. Ralph G. Carothers, president, Cincinnati Academy of Medicine; Honorary Executive Committee—Dr. Elizabeth Campbell, Dr. Robert Carothers, Dr. E. W. Mitchell; Finance—Dr. Gordon F. McKim; Clinical Sessions Program, Kentucky and Ohio Day—

Dr. M. A. Blankenhorn and Dr. Max M. Zinniger; Radio—Dr. Dale P. Osborn, chairman; Scientific Exhibits—Dr. Hiram B. Weiss; Women Physicians—Dr. Helena Ratterman, chairman. Mrs. Dale P. Osborn, past-president of the Women's Auxiliary to the Ohio State Medical Association, is co-chairman of the committee for the entertainment of visiting ladies.

A Straw In the Wind

Having Uncle Sam pay all the bills for medical education appears to have certain definite disadvantages, as evidenced by the following news item from the News and Courier of August 17, 1943:

MEDICAL COLLEGE NAVY STUDENTS GET WARNING

Navy regulations against participation in political activities were invoked yesterday to forbid further protest by navy students of the Medical College of the State of South Carolina against the passage of the Wagner-Murray-Dingell socialized medicine bill now pending in congress.

A notice on the bulletin board in the lobby of the college read as follows: "All navy V-12 students by regulations are not allowed to participate in any form of political activity or join in any movement concerning government policy. Orders of Captain Needham, commanding officer."

Captain R. C. Needham, U. S. N., retired, is the commanding officer of the naval units at the Medical College and at the University of South Carolina.

It was understood last night that the students felt upset about the matter, although no comment for the press was forthcoming from them. At a meeting held Thursday night at the call of the class presidents, they had unanimously backed up the position of the Medical Society of South Carolina, a local organization, in protesting against passage of the bill, which they termed "totalitarian," and had made plans to enlist support of students of the sixty-odd accredited medical colleges in the nation to fight the bill.

Students who are in the army are not affected by the navy order, but it is expected that similar regulations will be enforced with regard to them.

Those physicians who look forward to being on the governmental payroll might well consider what it could mean in curtailment of one's privileges of free speech.—*Editorial in September issue, Journal of South Carolina Medical Association.*

Correction In Endo Products Ad

The Journal regrets the error which appeared in the Endo Products, Inc., advertisement published on page 815 of the September issue due to a breakdown of part of the type while the page was on the press. The line referred to should have read "Thiamine Hydrochloride Endo."

Physician Often Is Vital Participant in Placement and Adoption of Children; Should Understand and Comply With the Ohio Laws on This Important Question

MANY Ohio physicians are confronted at some time in the course of their practice with requests for advice and assistance from childless couples who wish to adopt a child or by a mother, usually unmarried, who is seeking a home for an infant.

Unfortunately, as was pointed out in a resolution adopted by the House of Delegates of the Ohio State Medical Association at its meeting last Spring, there appears to be considerable lack of knowledge among physicians about adoptive and placement procedures, particularly the laws governing the placing of children under two years of age with foster parents.

A survey of 1,451 cases of adoption in 61 Ohio counties in 1938 conducted by the Division of Social Administration of the State Department of Public Welfare, revealed that 35 children were known to have been placed by physicians and eight by hospitals and nurses. All 43 of these placements were of children under two years of age and therefore made in direct violation of Section 1352-13 of the Ohio General Code. That section prohibits the placing of children under two years of age by anyone other than agencies holding custody, by commitment by a juvenile court, or with the written permission of the State Department of Public Welfare.

HAZARDS INVOLVED

Most of these cases were probably unintentional violation of the laws by a well-intentioned physician agreeing to help both the unmarried mother and a childless family known to him by placing the unwanted baby.

While some such placements turn out happily, others do not. There is always the likelihood that the unmarried mother, who has given up her baby soon after birth when she is under great emotional distress and had no alternative plan, and without proper legal procedure, may later regret her action and seek to find the child.

If the procedure was not entirely legal, the party in possession of the baby, is in a difficult situation and the mother has a fairly strong argument on her side in her efforts to regain custody of the child.

Moreover, the physician participating in an illegal placement of a child may find himself in jeopardy. The law provides for rather drastic penalties, such as fine and imprisonment, for anyone involved in the unlawful placement of children under two years of age.

Not only for his own protection, but as part

Editor's Note

- At the 1943 Annual Meeting of the Ohio State Medical Association, the House of Delegates adopted a resolution calling attention to unintentional violations of the laws pertaining to the placement and adoption of children on the part of physicians and instructing *The Journal* to publish pertinent information on this subject.

In compliance with action of the House of Delegates, *The Journal* has obtained authoritative information and suggestions from officials of the Ohio Department of Public Welfare which are presented in the accompanying article.

of his responsibility to society, the appropriate procedure would be for the physician to either refer the girl directly to a certified child welfare organization or if she is not able to make the agency contact herself, permit the physician to communicate with it. In such a case, a child welfare worker would interview the girl promptly and determine whether adoptive placement is what she really wants. If, as is frequently the case, she does not know definitely what she wants, arrangements can be made in many communities for a temporary period of care before she reaches a decision.

During this period, every effort is made by the agency, consistent with the girl's need for secrecy, to learn details of the child's history both maternal and paternal. In addition, careful observation is made of the child's physical and social development, so that if the mother decides to have the baby placed for adoption, as much is known about the child as possible in order to guide the agency in making the proper placement.

AGENCY WILL ASSIST

If the mother is certain at the outset that she wants adoptive placement for the baby, the child welfare agency will be glad to work with her to this end. Babies are sometimes placed in adoptive homes immediately upon leaving the hospital, but experience has proved the most desirable practice is to arrange for a short period in a carefully selected boarding home before the final placement. This is important, because so often the situation is not known until approximately the time of the birth of the child and

there is not an opportunity to learn the background of the infant by the time the mother is ready to leave the hospital.

In many instances, the physician knows a family who is interested in adopting a child and he wonders whether this family will have consideration if the placement is made by the agency. Such a family would be considered if suggested by the physician. It is possible that the agency may already know the family which the physician has in mind, in which case such family would be considered if it appeared that the baby would fit into that particular home.

TWO METHODS SUGGESTED

Since the Ohio law specifies that a child under two years may be placed only by a juvenile court or a certified child caring organization, it is necessary to secure legal custody to the child before making placement. After being assured that the child is suitable for adoptive placement, there are two courses open. One, the mother may go to the juvenile court in the county of her legal residence, where there is a private hearing, and the court awards permanent custody of the child to the agency. The other procedure is for the mother to permanently surrender her child to the agency, through the execution of the proper legal release, without a court hearing. In either case, the mother has no further responsibility for the placement. It is then not necessary that she give consent in an adoption proceeding. Her name does not appear on an adoption petition, and her identification remains secret.

Upon the securing of legal custody through either of these placement procedures, the agency may proceed with the placement of the child in the foster home selected. While the law requires a period of six months' residence in the home before the final adoption decree is granted, many agencies and adoptive parents prefer to wait for a full year. The agency may give counsel as needed, and is responsible for further planning for the child if for any reason the placement does not work out and it is necessary to remove the child.

LAW ON PLACEMENTS

Sections of the Ohio General Code relating to the placement or surrendering care and custody of children to an institution or association were enacted by the Ohio General Assembly April 4, 1923, and became effective July 23, 1923. They read as follows:

Procedure to Place Child in an Institution

Section 1352-12. The parents, parent, guardian or other person or persons having the custody of a child, may enter into an agreement with any public, semi-public or private association or institution of this state established for the pur-

poses or aiding, caring for or placing children in homes, and which has been approved and certified by the Division of Charities, Department of Public Welfare, placing such child in the temporary custody of such institution or association; or such parent, guardian or other person may make an agreement surrendering such child into the permanent custody of such association or institution, to be taken and cared for by such association or institution, or placed in a family home. Such agreements provided for herein shall be in writing, on forms prescribed and furnished by the Division of Charities, Department of Public Welfare, and may contain any and all proper and legal stipulations for the proper care of the child, and may authorize the association or institution when such agreements are for permanent care and custody to appear in any proceeding, for the legal adoption of such child, and consent to its adoption, as provided in section 8025 of the General Code. The adoption order of the judge made upon such consent shall be binding upon the child and its parents, guardians, or other person, as if such persons were personally in court and consented thereto, whether made party to the proceeding or not.

Special Requirements for Child Under Two Years of Age

Section 1352-13. No child under two years of age shall be given into the temporary or permanent custody of any person, association or institution which is not certified by the Division of Charities, Department of Public Welfare, as provided in sections 1352-1 and 1352-6 of the General Code, without the written consent of the Division of Charities or by a commitment of a juvenile court. Provided such child may be placed temporarily without such written consent or court commitment with persons related by blood or marriage, or in a legally licensed boarding home which is not established for the purpose of placing children in free foster homes or for legal adoption. Persons, associations and institutions duly certified and licensed under sections 1352-1 and 1352-6 for the purpose of placing children in free foster homes or for legal adoption, shall keep a record of such temporary and permanent surrenders of children under two years of age. This record shall be available for separate statistics, which shall include a copy of an official birth certificate and all information concerning the social, mental and medical history of such children which will aid in an intelligent disposition of them in case that becomes necessary because the parents or guardians fail or are unable to reassume custody. No child placed on a temporary surrender with an association or institution shall be placed in a free foster home or for legal adoption, and all such surrendered children who are placed in foster homes or for adoption must have been permanently surrendered and a copy of such permanent surrender must be a part of the separate record kept by the association or institution.

Prohibition Against Advertising, Etc.

Section 1352-14. It shall be unlawful for any persons, organizations, hospitals or associations which have not been approved and certified by the Division of Charities, Department of Public Welfare, to advertise that they will adopt children or place them in foster homes, or hold out inducements to parents to part with their offspring, or in any manner knowingly become a

party to the separation of a child from its parent, parents or guardians, except through a juvenile court commitment.

Penalties

Section 12789-1. Whoever violates any of the provisions of sections 1352-12, 1352-13 or 1352-14 of the General Code, shall be fined not more than three hundred dollars or imprisoned not more than three months, or both fined and imprisoned. Each act of violation shall be considered a separate offense and it shall be the duty of the Division of Charities, Department of Public Welfare to enforce the provisions of this act.

NEW ADOPTION LAW

Statutes relative to adoption were revised at the recent session of the Ohio General Assembly. The new Adoption Code, (H.B. 279) becomes effective January 1, 1944. Existing sections 10512-9 to 10512-23 of the General Code were repealed. General provisions of the amended code are as follows:

1. A husband and wife jointly, a step-parent married to one of the natural or legal parents of the child sought to be adopted, or any other proper person may petition the probate court of the county in which the petitioner resides or of the county in which the child was born or has a legal settlement or residence or has become a public charge, for leave to adopt a child and for a change of the name of such child. (A "child" means any person under 21 years of age.)

2. The petition for adoption must contain: name, date and place of birth of each petitioner and the child; relationship, if any, of the child to petitioners; name by which child shall be known after adoption; nature and extent of the child's property, if any; names and addresses of the parents of the child, provided that if the child is in the permanent custody of the Division of Social Administration, a county welfare department or a certified organization, the names and address of the parents may be omitted; name and address of legal guardian, if any; any additional facts necessary to determine proper consent; name of person or agency that placed child in the home; and a birth certificate, if obtainable.

HEARING REQUIRED

3. The probate court is required to assign a date for the hearing not less than 30 days nor more than 60 days after the petition has been filed, and appoint a "next friend" to the child to make a thorough investigation into the suitability of the adoption.

4. The "next friend" shall be a representative of the county welfare department or certified organization of the State Division of Social Administration, or some other person qualified by training and experience to conduct the investigation.

5. The investigation shall include, in addition to any other information the court may require

in the particular case, inquiries as to: physical and mental health, emotional stability and personal integrity of petitioners and ability to promote the welfare of the child; physical and mental health of the child; family background of child, including names and identifying data regarding the parents; reasons for child's placement away from parents, their attitude towards adoption and how the child came into the home of the petitioners; suitability of adoption considering racial, religious and cultural backgrounds and the child's own attitude toward the adoption, in case the child's own attitude makes this feasible.

WRITTEN CONSENT NEEDED

6. Written consent to the adoption is required as follows:

(1) By the child, if over 12 years of age;

(2) By each of the living parents, adult or minor, except (a) the unmarried mother, who may be considered the sole parent, (b) parents who have been permanently deprived of custody, or who have been adjudicated incompetent by reason of mental disability, (c) parents who have been determined by the juvenile court of the county in which the child resides to have willfully neglected the child for more than two years;

(3) guardian of the child;

(4) department or organization holding permanent custody.

7. If the probate court finds that the placement of the child has been illegally made and not in accordance with the provisions of Sections 1352-12-13, the case is referred to the juvenile court to investigate the placement. If the juvenile court approves the placement, adoption goes forward; otherwise, the juvenile court retains jurisdiction and responsibility for care of the child.

ACTION BY THE COURT

8. On the date set for hearing the petition for adoption, the probate court shall examine under oath the petitioner, the child if over 12 years of age, the next friend, and may also examine any other person having information or knowledge pertinent to the adoption. Husband and wife shall be examined separate and apart from each other, and a non-consenting parent shall be given an opportunity to be heard.

If the court is satisfied that the requirements of the adoption code have been complied with, that the petitioner is suitably qualified to care for and rear the child and that the best interests of the child will be promoted by the adoption, an interlocutory order of six months is entered. A final decree may be entered instead of the interlocutory order, if the child is legally the child by birth or adoption of the spouse of the petitioner, and is living in the home of the peti-

tioner, or the child was placed with the petitioners by a certified organization, has resided therein for at least six months, and has been visited at reasonable intervals by such organization and the organization recommends adoption.

The code requires that the next friend shall visit the child in the home at reasonable intervals within the six months following the interlocutory order, and shall submit a report to the court relative to the suitability of the adoption.

FINAL HEARING

9. The final hearing is held six months after the interlocutory order, unless the court extends the interval. The court may then enter the final decree of adoption, or revoke the interlocutory order upon hearing after notice to the interested parties. Upon entry of the final decree, a copy thereof, with a copy of the child's birth certificate, shall be mailed to the Division of Vital Statistics of the State Department of Health, so that a birth certificate in the new name may be issued.

10. Upon dismissal of the petition for any reason or the revocation of the interlocutory decree or denial of the final decree, the court shall return the child to the organization making the placement, if so made; otherwise, the child shall be certified to the juvenile court for appropriate action.

11. Adoption proceedings shall be indexed and recorded in separate records, and shall not be open to inspection by any person other than the parties of record and their attorneys, except upon order of the court for good cause shown.

12. The new law repeals the existing section providing for a nullification of the decree of adoption. Because of additional safeguards provided all parties concerned by the revised statutes, there seemed to be no necessity for nullification of the decree and no provision was made for such an action.

SAFEGUARDS NECESSARY

While it is admitted that the laws relative to placement and adoption require considerable red tape and some delay, welfare authorities who have studied the problem thoroughly are of the opinion that these safeguards are necessary for the welfare of the adopted child, the benefit of society generally and for the protection of the foster parents, as well as the physician and all other parties concerned. Placements of children, hurriedly and illegally made, without adequate investigation, hold considerable risk for all persons who may be a party to them.

NAMES OF AGENCIES LISTED

Local juvenile and probate courts can furnish physicians with the names of child-caring organizations which have been certified and licensed for the placement of children. Some communi-

ties in the state have no such organizations. However, a complete list of them for the entire state may be obtained by writing to the Division of Social Administration, State Department of Public Welfare, Columbus.

Among the adoptive services of its Children's Unit, the Division cooperates with the juvenile courts of the state, physicians and parents in working out plans for any unmarried mother and her child. If advisable, the Division will accept the guardianship of the unmarried mother if under 21 years of age, by a commitment from the local juvenile court, will make arrangements for the girl's confinement in a maternity hospital of good standards, and will endeavor to adjust the situation after the birth of the child. Some idea of the magnitude of this problem may be obtained from the number of illegitimate births in Ohio in 1942, which totaled 2,922.

The Division of Social Administration and other certified child-placement organizations render the same cooperative service for other adoptable children. Their facilities are always available to physicians who may wish to communicate with them about cases involving placement or adoption.

Auto Financial Responsibility Law With "Teeth" Now in Effect

The new Ohio Financial Responsibility Law, designed to promote public safety and to penalize the careless and financially irresponsible motorist, became effective September 20. Under the new law if a motorist has pending against him an unpaid judgment arising out of an automobile accident, he loses his right to drive for five years.

The procedure under the law is as follows: A judgment in any court of record in the state is immediately certified to the Registrar of Motor Vehicles. The Registrar then notifies the motorist that he has 30 days to satisfy that judgment. Failure to pay the judgment within 30 days will result in the revocation of his driver's license for five years.

The law also provides that the driver's license be revoked for three years if the driver is unable to show proof of financial responsibility following conviction for the following offenses: Manslaughter resulting from the operation of a motor vehicle while under the influence of intoxicating liquor or narcotic drugs; failure to stop after an accident when required to do so; a felony in the commission of which a motor vehicle was used.

Proof of financial responsibility can be shown by depositing with the Registrar of Motor Vehicles (1) a bond for \$11,000, (2) \$11,000 in cash or securities, or (3) an automobile liability and property damage insurance policy.

Readjustments in Nursing Services Needed to Meet Need of Civilians and Armed Forces, Directing Board States

THE attached statement has been issued by the Directing Board, Procurement and Assignment Service for Physicians, Dentists, Veterinarians, Sanitary Engineers, and Nurses, War Manpower Commission, and is published at the request of the Board:

* * *

It is utterly impossible to provide the necessary volume of wartime nursing service on a peacetime basis. Places where nursing is going on as usual must share with others. Individual nurses who have not made adjustments to wartime needs for their services should understand the necessity for their participation.

The National Nursing Council has pointed out that the value of any national plan must be judged by its usefulness at the local level, i.e., where nurses live and work—in the country, in the villages, towns, and cities of the nation.

WARTIME NURSING IS DIFFERENT

Wartime nursing is different! That inescapable fact must be generally accepted by nurses, by physicians, and by hospital administrators. Energy and motion now spent in resistance to change must be released for the attack on war-created needs.

Nurses have wrought many changes, but not enough, in the pattern of nursing service since Pearl Harbor. "We just do the best we can" is heard more frequently than "This is our plan". Generally speaking, educational programs have received more thought than the service programs. Acceleration of the basic course in nursing is an outstanding example. State boards of nurse examiners have initiated others.

PRIORITY ON ESSENTIALS

The principles of good nursing have not changed, but nurses are learning to concentrate on the essentials. In the analysis and administration of nursing service radical changes are being made. Tremendously valuable assistance in caring for patients is being secured from the Red Cross nurse's aides and other volunteers as well as from paid auxiliary workers.

Thus far nursing service has not been rationed; such rationing would be complicated by the differences in individual nurses and the degree of essentiality of needed services. The sharing of services is more difficult than the sharing of goods.

SHORTAGE OF NURSES

A critical shortage of nurses exists. Here are the facts:

Over 36,000 nurses are now with the armed forces and the Red Cross has accepted responsibility for the recruitment of an equal number by June 30, 1944. Our men are receiving skilled medical care of a high order as shown by the high percentage of recovery from injury. Skilled nursing is an important factor in such care. Then, too, the very presence of nurses near the bases of military operations has repeatedly been described as a potent force in maintaining morale.

There has been an unprecedented increase in

the use of civilian hospitals. Hospitals gave fourteen and a quarter million more days of care in 1942 than in the preceding year and the trend still is definitely upward. This is in keeping with the rapid growth of the Blue Cross (group hospitalization) plans and the Children's Bureau hospitalization program for the care of the families of service men.

Nursing is essential to the nation's health. The following National Nursing Inventories (of nursing resources) of 1941 and 1943, by the U. S. Public Health Service, offer a comparison of data for the two years:

NATIONAL NURSING INVENTORIES

	1941	1943
Total returns	289,286	259,174
Active		
Institutional	81,708	77,704
Public Health	17,766	18,900
Industrial	5,512	11,220
Private duty	46,793	44,299
Other	21,276	18,476
Inactive but available for nursing	25,252	38,746
		(of these 23,576 are married and under 40)
Inactive, not available	90,979	49,829
In Nurse Corps of Army and Navy	6,371	over 36,000
		(Precise data not available)

RETURNS INCOMPLETE

The total number of nurses graduated in the two years is well in excess of the number withdrawn for military service; this fact is not apparent in the inventory. The returns are apparently incomplete. Active nurses who did not return their questionnaires apparently did not realize the profound importance of the information requested. This information is the basis for present planning and safeguarding the future.

The relatively small decrease in the number of institutional nurses is much less significant than the increased use of hospitals in creating the serious shortage of nurses. The increased number of nurses in industrial nursing is, of course, not surprising.

The large number of inactive nurses who reported themselves available is encouraging, but—available for what? Full time? Part time? These nurses and others who are still "hidden" can make a valuable contribution to our nursing resources. Although it requires a little more planning, the service of two part-time nurses can equal that of one full-time one. Wartime nursing puts a tremendous burden on all the administrative nurses.

PROGRAM OUTLINED

Here is the program of the new Nursing Division of the Procurement and Assignment Service. The Red Cross recruitment committees are pledged to recruit 36,000 nurses this year. The new division will (1) determine the availability for military service or essentiality for civilian

service of all nurses eligible for military service and submit such determinations to the American Red Cross for use in procurement of nurses for the Armed Forces; (2) promote plans for maximum utilization of full-time nurses and those who are able to serve only part time; (3) develop and maintain a roster of all graduate registered nurses, and (4) develop and encourage sound methods of supplementing the work of nurses with non-professional personnel.

Through the War Manpower Commission, nursing will not only have the benefit of the experience of medicine in the procurement and assignment of physicians, but means will be found to interpret wartime nursing to physicians and their cooperation secured in effecting desirable wartime adjustments.

Those who may desire additional data on this question are referred to the following reports:

Priorities for Nurses; National Nursing Council for War Service, 1790 Broadway, New York, N.Y., May, 1943, revised edition.

Distribution of Nursing Service During War. National Nursing Council for War Service, 1790 Broadway, New York, N.Y., May, 1942.

Volunteers in Health, Medical Care and Nursing. U.S. Office of Civilian Defense, Washington, D.C.

Attorney General Opinions of Interest To Physicians

Opinions recently issued by Attorney General Thomas J. Herbert include several of interest to the medical profession. A syllabus of each follows:

No. 6334—(1) Where, prior to the enactment of H. B. No. 112 of the 95th General Assembly, an applicant has submitted himself for examination for a certificate to practice osteopathy and surgery and has paid the examination fee as prescribed by the then existing statute but failed to obtain a passing mark in such examination, by reason of the amendment of the statute by such house bill such applicant may not now take an examination in the subjects prescribed by said former Sec. 1288, G. C., and be licensed to practice osteopathy and surgery. (2) Where, prior to the enactment of H. B. No. 112 by the 95th General Assembly, an applicant had the preliminary educational requirements to admit him to an examination for a certificate to practice surgery he must, since the enactment of such examination, if such applicant desires to obtain a certificate to practice osteopathic medicine and surgery he must, since the enactment of such house bill, submit evidence of his preliminary training as prescribed in amended Sec. 1270, G. C., and be examined in the subjects prescribed for the examination to practice osteopathic medicine and surgery as enumerated in amended Sec. 1273, G. C. (3) The State Medical Board, since the enactment of H. B. No. 112 by the 95th General Assembly, has no authority to issue certificates licensing persons to practice osteopathy and surgery, but may issue certificates to

practice osteopathic medicine and surgery to those persons entitled thereto by reason of compliance with the provisions of such act.

No. 6335—The position of county director of welfare created under the provisions of Sec. 2511-1, G. C., is in the classified civil service.

No. 6341—Where feeble-minded persons have been committed by the court and it has been determined that the institutions of the state for feeble-minded are unable to receive additional inmates and the probate judge in making such commitment has been notified of such fact, it is the duty of the probate judge at the expense of the county to provide for the detention, supervision, care and maintenance of such feeble-minded person until such time as the state institutions for the feeble-minded are able to receive such inmate. However, in such case it is the duty of the Department of Public Welfare of the state to insure adequate and proper oversight and supervision for the due protection of such person and the public during such temporary period while the care and maintenance is being furnished at the expense of the county.

What Price Utopia

With the beginning of Autumn we plunge into the maelstrom of too much work for too few physicians. Busy though we may be, it is imperative that time and understanding be devoted to organization activities. Storm clouds on the horizon of social medicine portend an anxious winter. The ever present problems of medical care are assuming new phases, but always they show tendencies toward more regimentation.

The obstetrical care of the wives of service men will probably have been adjusted before this issue of the *Bulletin* appears. But did we need such legislation? Physicians have never fallen down in providing medical care in emergencies and times of special stress. However, though it may seem like a boon to the wives, was it, perhaps, merely more bait for the voter and more burden for the taxpayer?

The proposed Wagner Bill, levying a tax of about three billion dollars for medical care, needs very careful study. It would seem that the provisions for the administration of the funds are largely subject to the interpretation of the Surgeon-General. True, three billion dollars is a large mess of pottage.

With these and other proposed changes which may arise, it is important that we present a well-considered and unanimous stand, one commensurate with the dignity of the profession, one that will command the confidence of the community.—*Editorial by "H. D." in Sept. issue of Cleveland Academy of Medicine Bulletin.*

Northwestern Ohio Medical Society Meeting To Be Held
In Toledo, Oct. 5; Senator Taft Luncheon Speaker

ALL OHIO PHYSICIANS are cordially invited to attend the Ninety-Ninth Annual Meeting of the Northwestern Ohio Medical Association, Tuesday, October 5, at the Commodore Perry Hotel, Toledo. The following excellent program has been arranged:

- 10:30 A.M.—“Some Practical Problems in the Management of Menopause”, Dr. Hampton P. Cushman, associate professor of obstetrics and gynecology, Wayne University College of Medicine, Detroit.
- 11:15 A.M.—“Gastrosocopy as an Aid in Diagnosis of Gastric Lesions”, Dr. John Renshaw, Cleveland Clinic.
- 12:30 P.M.—Luncheon. Speakers: Hon. Robert A. Taft, United States Senator from Ohio, and Dr. C. C. Sherburne, Columbus, President, Ohio State Medical Association.
- 2:30 P.M.—Dr. Max M. Peet, professor of surgery, University of Michigan Medical School, Ann Arbor. (Subject to be announced later).
- 3:15 P.M.—“Basic Fundamentals of Poliomyelitis”, Dr. John A. Toomey, professor of clinical pediatrics, Western Reserve University College of Medicine, Cleveland.

Wives of physicians are invited to attend the luncheon at which Senator Taft and Dr. Sherburne will speak. Luncheon reservations should be addressed to Dr. W. B. Recker, Leipsic, secretary of the Northwestern Association.

Blood Plasma Reserves Distributed
By OCD to Five Ohio Cities

According to the Regional Office of Civilian Defense, Cleveland, blood plasma reserves have been distributed in Ohio by the OCD as follows:

City	Custodian of Plasma	Amt. & Type
Akron	City Hospital	353 units, grantee hosp.
Cincinnati	General Hospital	250 units, USPHS frozen
Cleveland	Dr. Geo. P. Bugbee, Supt., City Hospital	200 units, USPHS dried
	Dr. J. J. Knapp, Disaster Preparedness Committee	275 units, Red Cross dried
	Lakeside Hospital	500 units, USPHS frozen
	U.S. Marine Hosp.	243 units, grantee hosp.
	U.S. Marine Hosp.	497 units, USPHS frozen
Columbus	Dr. R. H. Markwith, State Chief, E.M.S., 306 State Office Bldg.	500 units, USPHS dried
	University Hospital	500 units, USPHS frozen
Miami Valley Hosp.		
Dayton	750 units,	grantee hosp.

Ashtabula—The medical library of the late Dr. O. A. Dickson, Jefferson, has been presented to the Ashtabula General Hospital. The fine collection of scientific books consists of 600 volumes with publication dates running from 1896 to 1942.

Columbus—Dr. Harry E. LeFever was recently elected a member of the Harvey Cushing Society.

Mass Chest X-ray Examinations Begun
Among Cleveland Workers

What is claimed to be “the greatest mass chest X-ray examination for tuberculosis ever attempted among industrial workers in the United States” is being undertaken in Cleveland under the supervision of Dr. Joseph B. Stocklen, Cuyahoga County tuberculosis controller, and local health commissioners, and with the cooperation of the Anti-Tuberculosis League and the support of the Cleveland Academy of Medicine. The survey, made possible by the loan of a portable high-speed fluorographic unit from the U. S. Public Health Service, hopes to average 2,000 examinations every week, with a goal of 100,000 set for the entire year’s operations. The survey crew expects to visit every major war plant in Greater Cleveland. Support for the tuberculosis survey has been pledged by local labor organizations. Chest X-rays will be given free on a voluntary basis to every plant worker. The reports will be confidential, and will be given only to the worker, or upon his request to his private physician. Company physicians will not have access to these reports, according to the press.

Bellville—Dr. W. H. Buker was named by the Richland County Board of Health to succeed Dr. J. P. Stober, Lexington, who resigned recently due to failing health. Dr. Stober had been a member of the board since it was organized nearly 20 years ago.

Orrville—“The Country Doctor” was the topic of an address made by Dr. George H. Irvin at a meeting of the Exchange Club.

WAR NOTES

Capt. David J. Roberts, formerly of Akron, writes that he is enjoying his work with the Army Air Force and reads with interest the communications received from the Ohio State Medical Association. He states that those in the service are counting on the men back home to battle against unsound medical and health programs and protect the interests of the profession while so many doctors are away. Roberts was promoted to his present rank recently.

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Col. Ernest F. Harrison, until recently post surgeon at Wright Field, Dayton, has been assigned to the Central Flying Training Command, Randolph Field, Texas.

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Lt. John E. Martin, former Columbus physician, appeared in a recent newsreel shown in Columbus, picturing the removal of wounded men from a bomber which returned to England after a flight over Germany. Lt. Martin is with the Air Force Medical Corps and has been stationed in England since July.

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Capt. Weldon E. Diller, formerly of Rawson, has landed in Australia, according to word received by his family. He was promoted to the rank of captain on June 28.

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Copies of *The Ohio State Medical Journal* are being filed in the library at Camp Mackall, North Carolina, where he is stationed with the 324 Station Hospital, Headquarters and Training Center for Air-borne Troops, both para-troopers and gliders, writes Maj. William E. Elliott, formerly of Alliance. Maj. Elliott says he hopes to be able to continue to file what he considers "an outstanding medical journal" in the files wherever he may be stationed.

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Lt. Comdr., W. F. Lyons, formerly of Coshoc-ton, has been assigned as medical officer for one of the naval training units stationed at Ohio Wesleyan University, Delaware.

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Comdr. Drew L. Davies, formerly of Columbus, has been transferred from Cincinnati where he was senior medical officer at the Naval Recruiting Station, to the Base Section, Line Four, Advanced Personnel Depot, San Bruno, Calif.

Dr. Roy L. Kile, past assistant surgeon, U. S. Public Health Service, formerly of Cincinnati, has been assigned as venereal disease control consultant for the U. S. Public Health Service at Cleveland.

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Comdr. Jerome Hartman has returned to Dayton after having been placed on the temporary retired list because of illness contracted while on active duty in the Southwest Pacific.

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He's really found out what hot weather is, Capt. David L. Hirst, formerly of Miamisburg, has written his wife from North Africa. To prove his point he describes conditions of July 4 as follows:

"The temperature remains around 140 in the shade, sometimes reaches 149 degrees—must be more than 180 in the sun. Yesterday there was a good breeze blowing, too, but it didn't do any good because it was so hot it burned your skin, giving exactly the same sensation as though you were standing too close to a raging fire. All day I lived with shorts on and a wet towel around my head and back. The evaporation would keep me cool enough to get by. But you can believe this or not, I would have to rewet the towel every 15 minutes because it would be bone-dry and I was using a very heavy towel. I had to keep my clinical thermometers under a wet cloth to keep them from breaking. Candle grease on a water can sitting in the shade melted and ran off. Flies are so torpid that you can walk on them and they don't fly away. Unfortunately they are not all on the ground. They are so thick that it is absolutely no exaggeration to say that it is necessary at times to watch your chance to put a spoonful of food in your mouth so as not to have flies crawl in at the same time."

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Capt. Bernard K. Craw's family at Toledo has been informed that he has been wounded in both hands while on active duty in the South Pacific and has been awarded the Order of the Purple Heart.

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Promoted recently to the rank of Captain, Dr. David E. Beynon, formerly of Girard, is with a coast artillery medical detachment in the Panama Canal Zone.

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Notes about Columbus medical officers . . . Capt. Ervin B. Wallace now has an overseas address, 130th Station Hospital, A.P.O. 4716, Postmaster, N. Y. . . Lt. Col. States D. McCoy has been transferred from Fort Hayes, Columbus, to a Desert Training Center, A.P.O. No.

180, Postmaster, Los Angeles. . . Maj. Carl S. Junkermann is overseas, his address, 262 Station Hospital, A.P.O. No. 4778, Postmaster, New York, indicates. . . Sixty per cent of the cases at the Norfolk Naval Hospital, Portsmouth, Va., where he is in charge of the orthopedic department, are orthopedic cases, according to Lt. Comdr. Judson D. Wilson. . . It's now, Maj. Willis B. Merrill. . . He's stationed at 25th Field Hospital, Camp Breckenridge, Ky. . . Maj. Frank E. Hamilton, Fort Sam Houston, and Capt. Robert C. Kirk, Fort Sill, were home recently on short leaves. . . Daniel J. Whitacre, somewhere in the Pacific area, has been promoted to the rank of major. . . The new address of Capt. Morris Goldberg is Jackson Barracks Area, New Orleans Port of Embarkation. . . Capt. C. O. Cramer was home on leave recently from LaGarde General Hospital, New Orleans. . . So was Capt. L. W. Rohr from his station at Army Air Base, Richmond, Va. . . Capt. Paul S. Ross is on duty at Camp Luna, New Mexico.

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Lt. Harold L. Keiser, formerly of Fremont, was graduated recently as a flight surgeon from the Army School of Aviation Medicine, Kelly Field, Texas.

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Capt. John A. Glorioso, formerly of Lorain and Lima, is taking special training at Walter Reed Hospital, Washington.

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Lt. John M. Wilkins, formerly of Marysville and Toledo, is stationed at the Station Hospital, B.T.C. No. 10, Greensboro, N.C. He and 10 other officers in the Air Force, including Lt. Robert Ringer, Cambridge, compose a group of rotating residents who are being given clinical and classroom work in the various specialties. The hospital was recently approved by the American Board of Surgery. Lt. Wilkins writes that there are a number of Ohio physicians at the station, including Capt. B. L. Boyle, Youngstown, and Maj. K. E. Liber, Canton, who are working together in the orthopedic section; Maj. F. W. Clement, Toledo, hospital anesthetist, and Lt. H. F. Kesinger, McArthur.

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Capt. Russell L. Wiessinger, formerly of Sidney, is flight surgeon for the Medium Bombardment Group, Avon Park Bombing Range, Avon Park, Fla. He received his promotion recently.

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Major John L. Plymale, Marion, has been sweltering in the California desert with the 32nd Evacuation Hospital, of which he is chief of the extremity and orthopedic service. Other Ohioans in the unit are: Major Chas. Berns, Cleveland and Lt. Walter A. Hoyt, Jr., Akron. Previously

attached to a medical regiment in Camp Berkeley, Texas, Dr. Plymale recently completed a two month's course in orthopedic surgery at Columbia. He was promoted to his present rank on June 26.

* * *

Any taxpayer who was a member of the military or naval forces of the United States in active service on September 15 has been granted an extension of time for such period as may be necessary but not beyond March 15, 1944, within which to file the declaration of estimated tax required by the Current Tax Payment Act of 1943 and to pay such estimated tax or any instalment thereof otherwise required to be paid before March 15, 1944. If under the terms of the extension the time for filing a declaration of estimated tax is extended beyond the close of the taxpayer's taxable year and the taxpayer makes his income tax return and pays the tax for such taxable year on or before March 15, 1944, no declaration of estimated tax need be filed for such year.

* * *

Reserve commissions in the Navy Medical Corps are now open for 600 qualified women physicians in the ranks of lieutenant commander, lieutenant and lieutenant junior grade, the Naval Bureau of Medicine and Surgery has announced.

* * *

At the Ashburn General Hospital of the Army at McKinney, Texas, recently dedicated, Maj. Theodore L. Bliss, Akron, is assistant chief of medical services, and Capt. Gerson Lowenthal, Cincinnati, is assistant chief of the eye, ear, nose and throat section.

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Capt. Richard J. Sanderson of Westerville and Wanatah, Indiana, a graduate of the University of Cincinnati College of Medicine in 1936, has been cited for bravery while serving as a flight surgeon with a bomber squadron in New Guinea.

* * *

Among those who recently graduated at the School of Aviation Medicine, Randolph Field, Texas, after completion of a course for aviation medical examiners were the following Ohio officers: Lt. Frank W. Anzinger, Springfield; Lt. Joseph J. Bell, Cincinnati; Lt. Robert J. Doernberg, Spencerville; Capt. Deane C. Epler, Columbus; Capt. Ferdinand V. Geiss, Cleveland; Lt. A. W. Harrold, Tiffin; Lt. James R. Hart, Cleveland; Capt. M. M. Horowitz, Columbus; Lt. Henri A. Kerns, Kenton; Capt. Harry E. King, Dayton; Maj. Bernard B. Larsen, Shaker Heights; Capt. Henry Luidens, Cleveland; Capt. A. M. Mills, Ashtabula; Lt. James F. Mills, Cincinnati; Lt. William E. Molle, Cincinnati; Maj. Robert E. Odom, Youngstown; Capt. Owen F.

Patterson, Holmesville; Lt. Frank J. Pickett, Cleveland; Capt. Carl W. Roth, Columbus; Maj. Leonard G. Steuer, Cleveland; Lt. John M. Wilcox, 3rd, Lakewood; Maj. Carl E. Zeithaml, Chagrin Falls, and Lt. Robert E. Zipf, Dayton.

* * *

Current army needs are for 1,000 additional trained physical therapy aides and they are being recruited through the Army Officers Procurement Services in the various service commands. Training courses are being given at a number of Army general hospitals, as well as private hospitals, including the Cleveland Clinic Foundation Hospital.

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The Seventy-Eighth Congress passed Public Law No. 130 establishing a Pharmacy Corps in the Medical Department of the Army to consist of seventy-two officers in grades from Colonel to Second Lieutenant. Appointments in the Pharmacy Corps will be made in the grades of Second Lieutenant from pharmacists between 21 and 32 years of age who are graduates of recognized pharmacy schools requiring four years of instruction, under such regulations as the Secretary of War shall prescribe.

* * *

The Etousa Society of Ophthalmology was conceived by United States Army ophthalmologists on the occasion of the British Congress of Ophthalmology. Under the direction of Lieut. Col. Derrick T. Vail of Cincinnati, a preliminary meeting was held in the London Senior Officer's Mess on May 1 at which Brigadier Sir Stewart Duke-Elder was guest of honor. Plans were made for bimonthly meetings to be held at a different general hospital and it was decided to publish a bimonthly journal.

* * *

Excerpt from letter by Major J. H. Lazzari, Cleveland, A.P.O. 924, San Francisco, Cal., from Southwest Pacific: "Scanning the news hoping against hope that something will develop into a break that may foreshadow the end. We all feel the same, I suppose. We are all about the same at 4th General. I don't know when I'll be up to some new changes, but it ought to be before long."

* * *

Lieut. Gen. Omar Bradley, commander of the U. S. Army Second Corps in the final battle in Tunisia, in his report to Gen. George C. Marshall, chief of staff, covering operations between April 23 and May 9, made the following comments concerning hospitalization:

"The medical plan was drawn up so as to provide quick evacuation. Initial locations placed the evacuation hospitals within sound of artillery fire and almost within sight of some of the

enemy's bombing operations. Locating these units well forward, however, in no way affected the efficiency of the doctors and nurses, who displayed an admirable coolness and accomplished results which, under normal hospital conditions, would have been considered excellent. Their forward locations reduced the time interval necessary for a wounded man to receive adequate care.

"The ambulance hauls to the base hospital at Bone varied from 85 to 110 miles over rough and tortuous roads. This distance was too great for evacuation of seriously wounded patients, particularly chest and abdominal cases. As a result the evacuation hospital which had initially been set up to take care of patients who would remain in the area until they could return to duty was given the mission of attending to the more seriously wounded.

"Blood donors in the hospitals became a problem, and additional personnel from depot companies and clearing companies of medical battalions were utilized for this purpose. One hospital unit formed its own blood bank by cross matching these individuals, withdrawing the blood and placing it in refrigerators where it was easily accessible. It was found that this blood could be kept for several days and then given cold".

* * *

Col. Walter S. Jensen has been appointed Deputy Air Surgeon of the Army Air Force, Brig. Gen. David N. W. Grant, Air Surgeon, has announced.

* * *

Lt. Colonel Edward L. Sherrer, Cleveland, 179th Station Hospital, A.P.O. 980, Seattle, Washington, writes as follows: "Our hospital is still in the process of construction. We will have a very nice institution with excellent equipment. I am executive officer and chief of medicine and have a varied day. I have had much to do with the designing and building, and it has been fun. The only ward I actually take care of is the officers' ward. During the Attu fracas, we were busy and had some Jap wounded and prisoners. We had a few gas gangrene cases, but the immersion foot and frost bite was the fly in the ointment. We live well, have mild diversions, and we even play baseball, us old fellows! I helped do a laminectomy!"

* * *

A check-up on Youngstown medicos in the service . . . It's now Maj. Herman H. Ipp of San Marcus Field, Lockhart Texas . . . Capt. John A. Rogers was home recently on leave . . . So was Maj. E. W. Sears . . . Dr. M. M. Szucs, past assistant surgeon, reserve, U. S. Public Health Service, is head cardiologist at a base hospital at Manhattan Beach, Brooklyn . . . Maj. John S. Goldcamp writes from the 44th Station Hospital,

Fort Sill, that he is coach of the enlisted men's baseball team . . . doing ophthalmology . . . and the outfit is composed of University of Wisconsin staff men . . . swell fellows all . . . Capt. Malcolm Hawk is with the same unit . . . Fred Coombs has been promoted to the rank of Major. Madison, Wis., is his station . . . Writing from Fort Lawton, Washington, Lt. Sam Klatman nips the rumor that the Army has too many medical officers . . . have only about one doctor to 1500 men there . . . doing all kinds of surgery and serving as O. D. in regular turn . . . putting in an average of 10 hours per day and a lot of extra night duty . . . had to learn all the paper work the hard way as he was assigned to care of the sick immediately and without preparatory instructions on paper routine . . . Maj. Charles R. Sokol is stationed with the 15th Fighter Group, A.P.O. No. 959, Postmaster, San Francisco.

* * *

Lieut. Edward J. Keeney, Cuyahoga Falls, spent a recent week-end at home, on leave from Fletcher General Hospital, Cambridge, Ohio, where he has been convalescing since July 4 from wounds received in Tunisia in early April. Lieut. Keeney reached England in August, 1942, less than a month after being commissioned. During an air raid on Bristol, he suffered several broken ribs. In November, he landed at Oran with the first wave of American troops engaged in the North African invasion, and thereafter saw steady, front-line duty until disabled by severe shrapnel wounds. He was evacuated by plane to a British base hospital at Casablanca. He was repatriated two months later, landing at Boston, and spent ten days at near-by Lovell General Hospital before his transfer to Cambridge. Completely recuperated and in excellent spirits, Lieut. Keeney is eagerly awaiting discharge from the hospital.

* * *

With Akron physicians in the armed forces . . . Promotions: William McK. Johnson to Commander; Frank Bly to Major; W. F. Franke to Captain; D. J. Roberts to Captain . . . Maj. Thayer Parry is in charge of the department of eye surgery at O'Reilly General Hospital, Springfield, Mo. . . . Capt. Milton Friedman, following service in India, has received a medical discharge and is practicing at 369 Maple Street.

* * *

Among recent graduates at the Army Medical Field Service School, Carlisle Barracks, Pa., were: Lieutenants Charles W. Asbury, Cincinnati; Richard L. Woodyard, Ralph L. Phillips, J. P. Randancovich, John R. Lucas and Theodore Mees, all of Columbus; William J. Flynn, East Palestine; Richard R. Goldcamp, Sidney C. Keyes, and Stanley C. Kyle, all of Youngstown.

Among the first hospitals to be allocated funds by the Federal Government for the establishment of a U. S. Cadet Nurse Corps was Christ Hospital, Cincinnati, which was granted \$144,068, affecting about 124 nurses in training and 128 to enroll.

* * *

A promotion to the rank of Major was received by Dr. William R. Althoff, formerly of Dayton, while with the Army Medical Corps in Sicily.

* * *

Maj. Thomas A. Weaver, formerly of Cincinnati, is serving as neurological surgeon at Camp Breckenridge, Ky., with the Twenty-Seventh Evacuation Hospital.

* * *

Lt. Comdr. Joseph Bolin, formerly of Norwalk, and Mrs. Bolin are residing at Great Lakes, Ill., where he is in charge of the X-ray department at the U. S. Naval Hospital.

* * *

Maj. Calvin G. Jackson, formerly of Kenton, has written his mother from a Japanese prison camp that he is in good health, requests her not to stay alone and asks her to see that his taxes are paid. No word had been received from Maj. Jackson since the fall of Bataan.

* * *

Maj. Miles T. Hoerner, former Dayton physician, has been made head of the new Army Air Force hospital at West Haven, Conn.

* * *

Capt. Gordon A. Pilmer, formerly of Springfield, is stationed at Mitchell Field, N. Y. He was promoted recently.

* * *

Now with the Army Air Force "somewhere in England," Dr. E. P. Sparks, formerly of Sidney, was recently promoted to the rank of Captain.

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Maj. R. J. Schork, formerly of Elyria, received his promotion to that rank while on active duty in the Pacific area.

* * *

Capt. M. B. Taliak, Cleveland, 8th General Hospital, A.P.O. 502, San Francisco, writes that he "arrived safely after traveling many thousands of miles of ocean and considerable blood, sweat and tears." About some of his experiences, Capt. Taliak comments as follows: "The 8th General Hospital is a good organization, and I am proud to be with it. Extra good equipment and facilities. Our site is beautiful and picturesque in a soft green valley protected by precipitous mountains on both sides. The weather is moderate and the rains are a deluge. The mud is deep but dries quickly with the sun. Lumber is precious, otherwise we would have floor boards in our tents, but galoshes keep us

dry during the day and we retire early, so our problem is solved. Laundry is difficult, so a change of clothing occasionally is quite a feat. I never realized what a housewife has to contend with every Monday morning until I had to do some of my own. Relatively, we are clean. Have seen a lot of material here and are quite busy. Surgery of all types, traumatic style. I had a fresh lettuce salad yesterday and a beef steak last week."

* * *

Missing in action following the fall of Corregidor, Lt. Charles B. Armstrong, formerly of Hamilton, has written his mother residing in Cincinnati from a Japanese prison camp. He is in good health and uninjured, Armstrong reported.

* * *

A new disease entity heretofore undescribed, which they term Bullis fever, apparently transmitted by a tick, is reported in *The Journal of the American Medical Association* for August 21 by Colonel John C. Woodland, Major Mordecai M. McDowell and Captain John T. Richards, Medical Corps, Army of the United States.

The disease was first recognized in the spring and summer of 1942 at the Brooke General Hospital, Fort Sam Houston, Texas. It is self limited in most instances and apparently confers immunity on those contracting it, since no recurrences have been observed.

The onset of the disease usually was abrupt with an initial chill or chilly sensation ushering in the attack. Fever soon followed. A great majority of the men complained of headache. There was a pronounced lassitude, prostration, loss of appetite and general weakness during the fever stage of the disease and a few patients were nauseated and vomited. The fever lasted from four to fourteen days and in the average case the temperature was elevated for a little over five days. Convalescence was protracted, especially if the illness had been severe. There was loss of weight in a great many of the men. In the more severe forms of the disease a rash, resembling German measles and at times typhus, made its appearance early in the disease but disappeared within forty-eight hours. In about 10 per cent of the cases skin manifestations developed. From clinical observation, the authors report, it is apparent that the incubation period of the disease is from seven to ten days.

The disease resembles in some respects cases of Colorado tick fever but also might be confused with other disease conditions, such as malaria.

All of the men in the cases reported by the authors gave a history of repeated and prolonged exposure to bites by a tick commonly known as Lone Star tick, so named because of the star shaped mark on its back. Although no positive evidence of the association of bites by the Lone Star tick with this disease, has been established, the authors say, it is their opinion that further laboratory investigation will prove that this disease is transmitted to man through the tick bite.

* * *

Stationed at Camp Adair, Oregon, Capt. Robert R. Pierce, formerly of Alliance, was recently promoted to that rank.

Lt. Harry D. Morris, Navy Medical Corps, reserve, formerly of Cleveland, is located at Camp Lejeune, New River, N. C. "the West Point" of the Marine Corps, where he is senior medical officer with a Construction Battalion Replacement Group. The station comprises some 170 square miles of jungle-like land, with pines, insects and wild life, he writes.

* * *

Maj. Norman C. Schroeder, formerly of Kenton, has been advanced to the position of post surgeon at the Army Air Force training command at New Haven, Conn.

* * *

Capt. W. E. Hudson, formerly of Dover and New Philadelphia, is a member of a special Army psychiatric hospital staff in North Africa which is using new methods of handling shell-shocked soldiers, making them fit for active duty in as short a period as four days.

* * *

Lt. Malcolm E. Switzer, formerly of Galion, is now a flight surgeon, following graduation from the school at Randolph Field, Texas.

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Capt. Patrick J. Fusco, formerly of Warren, is chief of surgical service and executive officer of the new hospital at Fairmont Army Air Field, Geneva, Neb.

* * *

Lt. Thomas W. Tucker, Navy Medical Corps, Reserve, saw action in his fifth battle zone when he was landed at Sicily with a food inspection party. He previously was in the North African theater, in England, in Iceland, and in an undisclosed area. He practiced in Cincinnati before entering the service.

* * *

Maj. W. R. Hockwalt, formerly of Dayton, has been transferred to the Station Hospital, Fort Sill, Okla., where he is in charge of orthopedic surgery for the 44th General Hospital Unit, composed primarily of University of Wisconsin staff physicians.

* * *

Capt. Courtney L. Jack, formerly of Cincinnati, is serving as neuro-surgeon at the Air Force Basic Training Center, Greensboro, N. C.

* * *

Capt. Robert Haubrich is serving as a flight surgeon in Hawaii, he has informed his parents, Col. and Mrs. Robert Haubrich, Columbus. Capt. Haubrich practiced at Pataskala before entering the service.

* * *

The "War Notes" appeal to him very much, Maj. Reubin R. Pliskin, formerly of Akron, writes from his new post as Chief of Medical Service,

Foster General Hospital, Jackson, Miss. Maj. Pliskin recently returned from foreign service at the Station Hospital, San Juan, Puerto Rico.

* * *

Dr. R. O. Ruch, formerly of Lima, U. S. Public Health Service, reserve, with the rank of Major, is venereal disease control officer at Omaha, Neb.

* * *

Capt. Robert M. Bartlett, formerly of Akron, is taking a course in thoracic surgery at the University Hospital, Ann Arbor, Michigan. He expects to be re-assigned to Fort Hayes, Columbus.

* * *

After some exciting experiences in the Sicilian campaign and talking with Italian medical officers, he is convinced that "we have the best standards of medicine in the world," writes Capt. W. E. Russell, formerly of Genoa. Dr. Russell states he has been receiving *The Journal* regularly while overseas and looks for it each month with keen anticipation.

* * *

Lt. Albert R. Zoss, Cincinnati, is in charge of the Allegry Section of Finley General Hospital, Thomasville, Ga., and is in addition on general medical service, having charge of a ward or two.

* * *

Maj. B. B. Larsen and Maj. Charles S. Higley, formerly of Cleveland, have been assigned to Truax Field, Madison, Wis., after completing a course at the School of Aviation Medicine, Randolph Field. Several other Clevelanders are also at the station hospital there, namely: Lt. John G. Budd, Capt. G. W. Petznick and Capt. Morse Newcomb. Among those assigned as residents there are Lt. E. R. Baldwin, Lt. W. P. Flynn, Lt. A. J. Karson and Lt. Saul Kottler, all of whom interned at Cleveland hospitals. The post is one of several selected by the Air Corps to provide residencies for medical officers.

Named OCD Gas Officer

Eugene W. Scott, Ph.D., formerly of the staff of Kettering Laboratory for Applied Physiology, Cincinnati, has been named Chief Gas Officer in the Medical Division, Office of Civilian Defense, Washington. Dr. Scott and Dr. Charles C. Chapple, Medical Gas Officer, will jointly administer the responsibilities of the Gas Protection Section of the Medical Division. Dr. Scott will be responsible for the chemical and technical aspects of gas protection and Dr. Chapple for medical education and personal protection against chemical agents.

Mantua—Dr. E. H. Knowlton spoke on the sulfa drugs at a meeting of the Kent Kiwanis Club.

How Are Your Press Relationships?

Excerpt from small-town Northwest Ohio newspaper:

"There are times when we get somewhat impatient with the Ohio State Medical Association. It would toss out of its organization an M.D. who did any paid advertising yet it can send out the thickest letters full of stuff to be printed free. They clutter up the editorial wastebasket frightfully."

This editor should be waited upon by a committee of the local medical society for a heart-to-heart talk. In the end, medicine's side of health issues should be presented to the public and the only way this can be brought about is through the closest of cooperation between the local medical society and the local newspapers. What is the situation in your county?

Duties of Stretcher Teams Defined By OCD Medical Division

The Medical Division of the Office of Civilian Defense has defined the duties of Stretcher Teams of the Emergency Medical Service as these duties have been modified by the recent development of the specialized Rescue Service.

Rescue Squads are now to assume the duties formerly assigned to the Stretcher Teams at major incidents with many trapped casualties. In addition to the technical work of rescue, this includes emergency care and transport of casualties from the scene of an incident to an ambulance or to a point where medical service is available. Stretcher Teams remain, however, an essential part of the Emergency Medical Service, the Medical Division points out. The functions of the teams as outlined in the new statement are as follows:

1. Assisting medical personnel at Casualty Stations in handling and nonprofessional care of minor casualties.
2. Unloading ambulances and assisting in reception of casualties at hospitals.
3. Performing rescue work at minor incidents not requiring specialized rescue squads.
4. Assisting Rescue Squads at major incidents at which many casualties are trapped.

Mansfield—Progress in combating the spread of venereal diseases in the Mansfield area was reported by Dr. W. B. Wild, city-county health commissioner, in a talk before the Rotary Club.

Columbus—Life in Australia where he lived for several years was described by Dr. Warren G. Harding at a meeting of the Xenia Rotary Club.

Medical Education Facilities Meeting Wartime Needs, Recent Report of A.M.A. Council Points Out

THAT the medical education facilities of the United States are fully meeting the wartime demands being placed on them is revealed in the forty-third annual presentation of educational data by the Council on Medical Education and Hospitals of the American Medical Association, published in the August 14 issue of *The Journal* of the Association.

The report says that the accelerated medical education program and increased enrollments in medical schools "are now producing excellently trained medical graduates for military and civilian needs in numbers far exceeding the production of doctors at any time in the history of this country. . . ."

Not only are medical schools of the nation properly handling the increased enrollments, but improvements in curriculum also are being inaugurated. "Practically all schools," the report says, "report that, while the basic medical curriculum remains essentially unchanged, subjects of war significance are being stressed or have been added. The most commonly mentioned subjects in this category are Tropical Medicine and Parasitology, First Aid, Shock and Blood Substitutes, Burns and War Wounds, Venereal Diseases, Aviation Physiology and Medicine, Industrial Medicine, Public Health, Chemical Welfare, Military Medicine and Chemotherapy.

POSTWAR PROBLEMS STUDIED

Two generalizations may be made from scanning this list: First, the subjects are not limited to clinical topics of a purely 'practical' nature but involve as well material of basic scientific importance. Second, many of these subjects will continue to be of great medical importance after the war, so that these wartime additions to the curriculum are not simply necessary educational concessions to an emergency, but will probably continue to justify their inclusion in our educational programs after the war. . . ."

The increased demands on medical schools are being met by faculties seriously depleted by the numbers who have entered the armed forces. Up to July 1, 1943, the seventy-six medical schools and schools of basic medical sciences in the United States had contributed 5,637 faculty members to the armed forces.

It is pointed out that at present virtually all medical schools in the United States are operating on an accelerated program, admitting a new class approximately every nine months and condensing the traditional four academic years of the medical curriculum into three calendar years

by omitting summer vacations, without a reduction in total classroom laboratory and clinic hours.

STATISTICS ON SCHOOLS

The report states that there are now sixty-six approved medical schools in the United States. Between July 1, 1942, and the opening of the first academic session commencing in 1943, varying in different schools anywhere from January to July, there were 5,223 graduates. To this figure may be added the estimated 10,889 students who will graduate between the time of the opening of the first academic session in 1943 and January, 1945. This will be an average of 6,445 graduates per calendar year, which far exceeds the number ever graduated from schools in the United States, even at the time when one hundred and sixty schools were operating in 1905. "This figure," the report says, "is a conservative expression of the probabilities, since there will probably be an additional 4,500 graduates in the first six months after Jan. 1, 1945, totaling over 20,000 graduates in a period of exactly three years from July 1, 1942, to July 1, 1945, or nearly 7,000 a year.

Throughout the country freshmen classes will enter one or more medical schools during every month from September, 1943, to January, 1945, with the sole exception of the month of December, 1944. Dates of graduation will also be staggered throughout these months, with most of the students graduating in the months of December, 1943, and September, 1944, although some students will complete their work and be available for internships in every month of this period with the exception of the months of September, 1943, May and November, 1944, and January, 1945. In this connection the report points out that students in all states of the Union as well as the District of Columbia, Alaska, Hawaii and Puerto Rico have now adjusted their licensure legislation or practices so that graduates under the accelerated medical program will be eligible for admission to licensure, at least for the duration of the emergency.

INCREASE IN STUDENTS

In the seventy-six approved medical schools and schools of the basic medical sciences in the United States there were in the academic year ending with the admission of the first class in 1943, 22,631 students studying medicine, an increase of 600 or 2.7 per cent above the preceding academic session. The enrollment increase in Canadian schools was 2.0 per cent. In addition there were 566 fifth year students in schools of

the United States plus 403 fifth year and 219 sixth year students in Canada.

Regarding internships in civilian hospitals approved for intern training, the report points out that in January, 1943, these institutions could accommodate 7,959 interns whereas only 5,567 actually were on duty, a shortage of 2,392 interns. It is emphasized that in the face of this shortage it is becoming increasingly important that hospitals cooperate in maintaining an equitable distribution of interns by limiting appointments to actual minimum needs. A shortage is also reported in the numbers available for residencies, assistant residencies and fellowships.

SUPPLY FOR MILITARY

Discussing "The Supply of Physicians," *The Journal* says that "More than 4,000 seniors who entered the accelerated medical education program over a year ago are now well into their intern year and will complete that training before March 31, 1944. They will thus become available for military and civilian practice three months earlier than in normal times. Even half of these, should only that small proportion be commissioned, can care medically for over 300,000 troops. If this number of men is thereby enabled to enter active service three months early, before April of next year, the accelerated program will have justified itself in supplying the men required. . . ."

Postwar medical educational facilities are not being ignored. *The Journal* says that "Recognizing that large numbers of physicians will be seeking advanced training immediately after the war, the Council on Medical Education and Hospitals is making a careful study of the educational facilities in the graduate and postgraduate fields. A preliminary survey has already been instituted to determine what institutions and agencies will be able to expand their regular educational activities to meet additional postwar needs. . . . The large number of physicians who return to civilian life will likewise find that the medical profession, the schools and the hospitals stand ready to meet the educational needs of the postwar period."

Alliance—The field of medicine has made tremendous strides since the beginning of World War II, Dr. F. P. Bennett told members of the local Kiwanis Club at a recent meeting. Dr. Albert Wild showed movies of operative procedures.

Geneva—Dr. N. C. Kiefer has been appointed medical assistant to Dr. Perry Burgess, president of the Leonard Wood Memorial, American Leprosy Foundation.

Cincinnati—Dr. Clifford Straehley spoke on the "Effects of Tobacco" at a meeting of the Kiwanis Club.

New Vocational Rehabilitation Office To Administer U.S. Program

A new Office of Vocational Rehabilitation has been established in the Federal Security Agency to administer the expanded Federal-State civilian rehabilitation program provided under the Barden-LaFollette Act of July 6, 1943.

Michael J. Shortley was named as Director of Vocational Rehabilitation to head the new Office, and of John A. Kratz, as Associate Director.

"The expansion of the program," Federal Security Administrator Paul V. McNutt said, "will contribute to the war effort by facilitating re-employment of the physically handicapped through provisions for physical restoration where possible and training necessary for employment."

"Until now," he pointed out, "the program did not provide for remedial treatment, though frequently relatively simple surgery would materially decrease the physical handicap or even remove or fully compensate for it. The new law makes Federal money available for this purpose, as well as for job training."

Congress recently authorized the Veterans Administration to provide vocational rehabilitation at Federal expense to discharged veterans of the present war who have service-connected handicaps. The program administered by the new Office of Vocational Rehabilitation will provide care for other groups of handicapped individuals not receiving service under the Veterans Administration.

As a war measure, the Federal Government will pay the expense incurred by the States in the rehabilitation of war disabled civilians. Under the new statute Federal grants also cover the entire administrative cost of approved State vocational rehabilitation programs and half the expense for rehabilitating individuals other than war disabled civilians. State Boards of Vocational Education are designated as the agencies for the administration, supervision and control of State programs for vocational rehabilitation, except that administration of rehabilitation for the adult blind is committed to State Blind Commissions or similar agencies where such bodies have the necessary authority under State law.

Prize for Paper on Glaucoma

The National Society for the Prevention of Blindness has announced that a prize of \$250 will be awarded for the most original paper adding to the present knowledge about medical treatment of non-congestive glaucoma. Papers should be in the office of the Society, 1790 Broadway, New York City, by September, 1944.

Present Plans to Provide More Beds for Mentally Ill Are A Step Forward, But Inadequate, Institute Declares

OHIO'S need for additional beds for hospitalization of the mentally ill, is reviewed in a bulletin issued September 10 by The Ohio Institute, Columbus, a private research and philanthropic organization interested in assembling data on social and welfare questions.

The bulletin points out that Ohio has taken steps to build up a financial reserve to erect additional institutions and enlarge present ones after the war and suggests that preparations be made to enlarge on present plans in order to meet more adequately existing and future needs.

\$9,000,000 APPROPRIATED

Following is the text of the report:

"Of the \$9,000,000 reserved by the Ohio Department of Public Welfare, from legislative appropriations, for its program of building expansion and plant improvement at the institutions under its charge, about \$4,345,300 will be expended on the hospitals for the mentally ill. This part of the program contemplates, among other things, additional staff quarters at several of the hospitals and a large increase in bed facilities for patients.

"Plans include the provision of 550 bed facilities for mentally ill patients with tuberculosis at the Ohio State Sanatorium. This project will bring the total expenditure for institutional expansion and improvement on behalf of the mentally ill to something like \$5,150,000, and the total number of added bed facilities to 3,050 for this class of patients under state care. Existing accommodations and equipment will be modernized.

DISTRIBUTION OF NEW BEDS

"The proposed additional bed facilities for mental patients are to be distributed approximately as follows:

Athens State Hospital.....	200
Columbus State Hospital.....	300
Dayton State Hospital.....	300
Hawthornden State Hospital.....	1,500
Lima State Hospital.....	200
(for criminal insane)	
Ohio State Sanatorium.....	550
(for tuberculous)	
Total	3,050

"These plans, which must await the end of the war and the lifting of priorities on building materials and labor before they can be completely

carried out, represent nevertheless a long step forward in providing needed institutional accommodations for the mentally ill. Considering only the over-all figure for the state as a whole, how will the addition of 3,050 more bed facilities in the next few years affect the adequacy of Ohio's provision for state hospital care?

"For the year 1942 the average daily population of the hospitals was 19,953. The 'normal capacity' of the hospitals was reported on December 31 as 16,637. Thus the hospitals were overcrowded by more than 3,300 patients. This is a larger number than the number of projected new bed facilities. The building program, in terms of enlarged hospital capacity, will therefore not take care of even present overcrowding.

REPORT ON EIGHT-YEAR PERIOD

"In the period of eight years ending in 1942 the increase in average daily population took place at an average annual rate of 332 patients. In another eight years, if the same rate of increase should continue, the average daily population of the hospitals (in 1950) would be 22,609. If only 3,050 bed facilities were added meanwhile, the capacity of the hospitals would be 19,687. By this overly precise method of reckoning, the hospitals would be overcrowded by nearly 15 per cent—which would, indeed, be less than the present 20 per cent.

"It is quite impossible to make any sure prediction as to the future rate of growth of hospital population in Ohio. This has fallen off markedly since America's entry into the war, and has also been affected somewhat by the shortage of hospital accommodations. There are too many factors in past and prospective growth to be discussed here at this time. Suffice it that in this state, as elsewhere, the 'curve' of rising hospital population has shown temporary ups and downs, and will doubtless continue to do so. It seems probable, in spite of measures that can and should be taken to prevent an excessive rate of growth of hospital population, that Ohio is still a long way from achieving even a desirable minimum of accommodations for the mentally ill.

STATES COMPARED

"The states 'hospitalization rate' (number of resident patients per 100,000 of the general population) is by no means high. In 1938, according to a report of the U.S. Census Bureau, Ohio ranked 21st among the 48 states in this respect, and had a rate even lower than that for the country as a whole. In 1940, from calculations

based on the U.S. Census figures, the 'hospitalization rates' of Ohio and other states were as follows:

"Ohio	281.6
"East North Central States.....	292.3
(except Ohio)	
"New England States.....	458.3
"California	332.3
"Massachusetts	529.8
"New York	547.5
"Illinois	393.1

"If in 1940 Ohio had cared for as many mentally ill patients as the New England States, in proportion to the general population, it would have had at the end of that year a resident hospital population of more than 31,000 instead of less than 19,500. In short, Ohio 'hospitalized' less than two-thirds as many mental patients as New England, in proportion to population.

"Ohio has begun to build up a financial reserve and to prepare plans to enable it during the post-war period to overcome its present shortage of accommodations for the mentally ill. It should carry these preparations still further if needs are to be completely met.

"No account is taken in this presentation of any emergency measures that may be adopted to increase available facilities otherwise than through the building and alterations programs here described."

New Suggestions on Treatment of Burns Offered by OCD

The Medical Division of the Office of Civilian Defense has revised its pamphlet, "Treatment of Burns and Prevention of Wound Infections," to incorporate new techniques that have been developed within the past year. The recommendations in this pamphlet are based on recent directions of the Committee on Chemotherapeutic and Other Agents and the Subcommittee on Burns of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Originally drawn up by these committees for the armed forces, the recommendations have been modified to adapt them to the problems involved in the treatment of civilian casualties.

Recommendations for the use of sulfonamides are accompanied by the observation that these drugs must be used more cautiously in the treatment of civilian wounds than is necessary in the care of military casualties, for the following reasons:

"The injured may include individuals of all ages and with various types of pre-existing disease, instead of a selected group of healthy young males. The possibility of toxic effects is therefore greatly enhanced. Moreover, it is

assumed that in civilian injuries, hospitalization will be possible in a relatively short time, whereas in military operations such is not always the case. This usually makes it possible to postpone all consideration of chemotherapy until the injured have been hospitalized. It is then possible to administer sulfonamides with better safeguards and to consider such contra-indications as other pathological conditions or known sensitivity to individual drugs. The dangers of dehydration can also be better prevented or overcome under such circumstances."

The emergency care of burns is outlined. The most notable change in the OCD pamphlet is the withdrawal of the recommendation of the use of ointments or jellies containing tannic acid in the first-aid treatment of burns. The new advice given is that when definitive care cannot be carried out within two hours, the patient should receive sufficient morphine to relieve pain (not less than one-half grain, except in patients with lung and bronchial damage, the very old or the very young); and the burned surfaces should be covered with sterile boric acid ointment or petrolatum over which one or two layers of gauze of fine mesh (44) is to be smoothly applied. Over this dressing thick sterile gauze or sterile cotton waste is to be placed and the entire dressing is to be bandaged firmly but not tightly. Substitution of jelly containing 5 per cent sulfathiazole in water-soluble base, which is supplied in the OCD carrying case A for Mobile Medical Teams, is permissible.

The discussion of definite treatment of burns has been expanded to stress the necessity for administration of large amounts of plasma, and the pamphlet describes "open" and "closed" treatment for burns. In the new directions, additional emphasis is placed on masking of both the patient and his attendants, in order to minimize the danger of secondary infection.

Coming Meetings

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 10-13.

American Public Health Association, New York, Oct. 12-14.

Association of Military Surgeons of the United States, Philadelphia, Oct. 21-23.

Inter-State Postgraduate Medical Association of North America, Chicago, Oct. 26-29.

Northwestern Ohio Medical Association, Toledo, Oct. 5.

Southern Medical Association, Cincinnati, Nov. 16-18.

Columbus—"Sulfa Drugs and Blood Plasma" was the subject of an address made by Dr. John Earl Briggs before members of the Northwest Kiwanis Club.

In Memoriam

Frederick J. Champney, M.D., North Baltimore; Wayne University College of Medicine, Detroit, 1893; aged 76; died August 17. Dr. Champney had practiced in North Baltimore since 1932, and previously practiced in Cygnet and other communities in Wood County. He was a member of the Church of Christ. His widow survives.

Stewart Fulton, M.D., Cleveland; Rush Medical College, Chicago, 1934; aged 37; reported September 3 as having died in India, where he was serving as a 1st Lieut. in the Medical Corps of the Army of the United States. A native of Rockford, Ill., Dr. Fulton went to Cleveland in 1933 as an intern at City Hospital, remaining on the staff there until 1935. For the next year he was chief resident at Fairview Hospital, and resigned that post to become a medical missionary for the Presbyterian Board of Foreign Missions in India. He entered the service shortly after his return to this country in 1942.

Lloyd P. Gieringer, M.D., Toledo; University of Cincinnati College of Medicine, 1923; aged 45; member of the Ohio State Medical Association and the American Medical Association; died September 2, at the Newport Naval Hospital, Newport, R. I., where he was stationed. Lieut. Comdr. Gieringer had been on active duty in the Navy for over a year. A member of the staff of Mercy Hospital, Dr. Gieringer practiced in Toledo for nearly 15 years. Surviving are his widow and a daughter.

John Windsor Harbarger, M.D., Jackson; Kentucky School of Medicine, Louisville, 1892; aged 76; former member of the Ohio State Medical Association and the American Medical Association; died August 27. Dr. Harbarger retired several years ago after having practiced in Jackson since 1907. He was a captain in the Medical Corps of the U. S. Army during World War I. His widow and a son survive.

William Carleton Harris, M.D., Cincinnati; Miami Medical College, Cincinnati, 1897; aged 73; member of the Ohio State Medical Association and the American Medical Association; Fellow of the American Academy of Ophthalmology and Otolaryngology; died August 12. A member of the staffs of Deaconess and Jewish Hospitals, Dr. Harris had practiced in Cincinnati for 45 years. He was a member of the Masonic Lodge and the Elks. His widow, a daughter, a brother and a sister survive.

Jerry Morris Hyde, M.D., Nelsonville; Bellevue Hospital Medical College, New York, 1885; aged 83; member of the Ohio State Medical Association

and Fellow of the American Medical Association; died August 26. One of the community's best known citizens, Dr. Hyde was actively identified with its professional and business life for over 50 years. He began the practice of medicine in Chauncey, locating in Nelsonville on January 1, 1887. Dr. Hyde was a Methodist and a Mason. Surviving are his widow, two daughters, a son—Dr. W. H. Hyde, Nelsonville, and a brother.

Geo. Goodhue Kineon, M.D., Gallipolis; Miami Medical College, Cincinnati, 1905; aged 64; member of the Ohio State Medical Association, American Medical Association and the American Psychiatric Association; died August 21. Dr. Kineon had been superintendent of the Ohio Hospital for Epileptics since May, 1911, and a member of its medical staff since 1906. Well known in medical circles throughout the state, Dr. Kineon had been an officer of the Section on Nervous and Mental Diseases of the Ohio State Medical Association. He was active in community affairs. Dr. Kineon was a member of the Masonic Order, Elks and the Rotary Club. A brother survives.

Charles Wesley Larkins, M.D., Cincinnati; Eclectic Medical College, Cincinnati, 1918; aged 54; died August 28. Dr. Larkins practiced in the Western Hills section of Cincinnati for over 20 years. He had served as president of the Westwood Athletic Club, director of the local Civic Association, treasurer of the Westwood Republican Club, and a member of the Advisory Board to Hamilton County S.S. Board 29. Dr. Larkins was a Mason. His widow, a son, two brothers and a sister survive.

James Albert McClure, M.D., Columbus; University of Wooster, Medical Department, Cleveland, 1881; aged 88; member of the Ohio State Medical Association and Fellow of the American Medical Association; died September 9. Dr. McClure was the oldest practicing physician in Columbus, having been located there for 61 years. He was a member of the United Presbyterian Church. Surviving are his widow, two daughters, two sons, one of whom is Dr. Roy D. McClure, chief of surgery at Ford Hospital, Detroit; three sisters and a brother, Dr. R. E. McClure, Blairsville, Pa.

John Benjamin Morgan, M.D., Cleveland; St. Louis University School of Medicine, 1910; aged 56; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American Urological Association; died September 7. Dr. Morgan had practiced in Cleveland for 33 years. He was vice-chief of

staff and director of urology at St. John's Hospital. Surviving are his widow, four sons, his parents, four sisters and four brothers, including Dr. James E. Morgan, Cleveland.

King Allen Norris, M.D., Columbus; Ohio Medical University, Columbus, 1898; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died September 4. Dr. Norris had been practicing in Columbus for 45 years. He was a member of the Masonic Order. His widow survives.

George Lawrence Ramsey, M.D., Powhatan Point; Ohio Medical University, Columbus, 1898; aged 71; member of the Ohio State Medical Association and the American Medical Association; died August 29. Dr. Ramsey practiced for a number of years at Batesville and Centerville, locating in Powhatan Point 42 years ago. Active in civic affairs, he had headed the local board of education for many years. Dr. Ramsey was a member of the Methodist Church and the I.O.O.F. Surviving are his widow, a son, three brothers and two sisters.

Edward Clifton Rinehart, M.D., Struthers; Ohio State University College of Medicine, 1913; aged 57; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 29. Dr. Rinehart practiced in Struthers for 30 years. He was a member of the United Presbyterian Church. Surviving are his widow, a daughter, a sister and two brothers.

Reuben Artman Robinson, M.D., Columbus; State University of Iowa College of Medicine, Iowa City, 1903; aged 75; died September 19. Dr. Robinson practiced medicine in Pensacola, Fla., until 17 years ago when he retired and came to Columbus. He was a Spanish-American War veteran. His widow and two daughters survive.

William Roush, M.D., Lima; Cincinnati College of Medicine and Surgery, 1891; aged 79; former member of the Ohio State Medical Association, the American Medical Association and the American College of Surgeons; died September 11. Dr. Roush practiced in Lima for 35 years. He was previously located in Spencerville. His widow and three children survive.

Harry Elmer Rowland, M.D., Johnstown; Ohio Medical University, Columbus, 1901; aged 72; member of the Ohio State Medical Association and the American Medical Association; died September 14. Dr. Rowland was located in Johnstown for 33 years. He was a member of the Masonic Order, the Knights of Pythias and the Methodist Church. His widow and a daughter survive.

Hans Eugen Simmel, M.D., Warren; Friedrich Wilhelm University, Medical Faculty, Berlin, Germany, 1914; aged 52; member of the Ohio State Medical Association and the American Medical Association; died August 23. Pathologist at Warren City Hospital since December 1, 1941, Dr. Simmel was on a six-months leave of absence in Colorado because of ill health. He had left Germany for England in 1939, and came to the United States in March, 1940. After a fellowship at Mt. Sinai Hospital, Chicago, he located in Warren. Dr. Simmel was one of the patrons of the Warren Community Forum and a member of the Post-War Study Group. Surviving are his widow, who was also a practicing physician in Germany, two daughters and two sons.

Dell Williamson Van Gilder, M.D., Cuyahoga Falls; Rush Medical College, Chicago, 1900; aged 66; died July 14. Dr. Van Gilder went to Cuyahoga Falls a year ago, after having practiced in Peninsula for several years. His widow and a daughter survive.

First Aid Supplies Donated To Cleveland Civil Air Patrol

In response to a request from the First Group Civil Air Patrol of Cleveland, Ohio, the Medical and Surgical Relief Committee of America is donating to this C.A.P. unit emergency medical supplies to supplement its minor first aid equipment. The drugs, instruments and bandages that are needed will be used in ambulances, or transported by airplane directly to the scene of disaster, explained Dr. E. Perry McCullagh, Cleveland, physician attached to the First Group C.A.P. Packed in a portable case, the Committee's contribution includes: Sulfa drugs, anesthetics, antiseptics, an instrument roll for minor surgery and many other essential medical items.

The Medical and Surgical Relief Committee, 420 Lexington Avenue, New York City, conducted by a nation-wide group of physicians and surgeons, is organized to send medical aid to the armed and civilian forces of America and her Allies. Cleveland doctors who are members of the Committee include: Dr. Alexander T. Bunts, Dr. M. D. Friedman, Dr. Harry Goldblatt, Dr. Carl H. Lenhart, Dr. Ruth A. Robishaw, Dr. Harry G. Sloan, Dr. A. Strauss.

Rittman—Dr. Arthur T. Hopwood, chief of the medical staff of the State Hospital for the Feeble Minded at Apple Creek, was guest speaker at a meeting of the Rotary Club. He was introduced by Dr. O. J. Shong, program chairman.

Lancaster—Dr. C. A. Barrow recently completed 50 continuous years of medical practice.

Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)

CLINTON

Members of the Clinton County Medical Society and their wives held their annual picnic at the camp of Dr. Frank A. Peelle near Wilmington, Wednesday afternoon, September 8.—News clipping.

HAMILTON

The first regular meeting of the 1943-1944 year of the Cincinnati Academy of Medicine was held on September 21. Dr. Ralph G. Carothers delivered his address as Retiring President, and Dr. Hiram B. Weiss gave the inaugural address of the Incoming President. Reports were made by standing committees and the new officers were installed.—Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. John A. Toomey, clinical professor of pediatrics, Western Reserve University School of Medicine, Cleveland, discussed "Basic Considerations in Poliomyelitis", at a meeting of the Ashtabula County Medical Society, September 14, at Ashtabula.—News clipping.

CUYAHOGA

Dr. Evan W. Thomas, assistant professor of medicine, New York University College of Medicine, spoke on "Rapid Treatment of Syphilis," at a meeting of the Academy of Medicine of Cleveland, September 17, at the Cleveland Medical Library Auditorium.—Bulletin.

LAKE

At a well-attended meeting of the Lake County Medical Society, September 15, at the Lake County Memorial Hospital, Painesville, there was a general discussion of the topic, "State Medicine".—E. S. Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. John P. Tucker, Cleveland, spoke on "Penicillin and Modern Bacteriostatic Agents," at a meeting of the Mahoning County Medical Society, September 21, at the Youngstown Club.—Bulletin.

PORTAGE

"Fractures of the Neck of the Femur," was the topic discussed by Dr. Fowler B. Roberts, Akron, at a meeting of the Portage County Medical Society, September 9, at the Robinson Memorial Hospital, Ravenna.—Emily Widdecombe, M.D., secretary.

SUMMIT

Dr. A. A. Aaron, professor of clinical medicine, University of Buffalo School of Medicine, spoke on "Review of Drugs Commonly Used by the General Practitioner", at a meeting of the Summit County Medical Society, September 7, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

Members of the Belmont County Medical Society were hosts to local dentists, druggists and their wives at a meeting, September 2, at the

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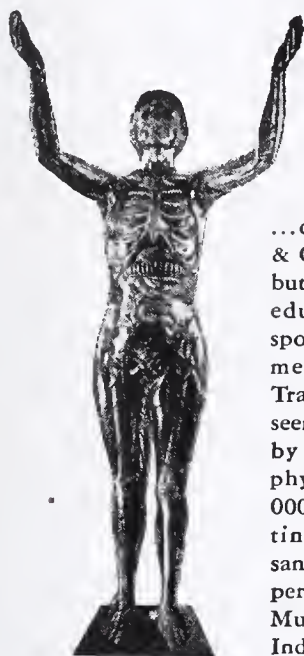
Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

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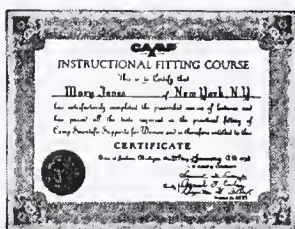


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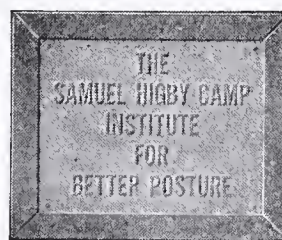


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Desch Hotel, Martins Ferry. The afternoon program included a report of the Procurement and Assignment Committee by Dr. F. P. Sutherland, a report on the Wagner-Murray-Dingle bill by Dr. R. H. Wilson, chairman of the Legislative Committee, and comments by Dr. C. C. Sherburne, President of the Ohio State Medical Association, Hon. Earl R. Lewis, Congressman of the 18th District, and Dr. Carl Lincke, Carrollton District councilor. The Woman's Auxiliary met at the home of Mrs. R. H. Wilson during the afternoon. Following dinner, Dr. Sherburne spoke on "The Trend of Medicine," and Mr. Lewis discussed "Washington Today."—C. W. Kirkland, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MUSKINGUM

A meeting of the Muskingum County Academy of Medicine, September 8, at the University Club, Zanesville, was devoted to a discussion of the plan of the Children's Bureau for maternity and pediatric care of the wives and children of enlisted men.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

HURON

Dr. W. W. Lawrence, Huron County health officer explained the maternity and infant care program for wives and children of enlisted men at a meeting of the Huron County Medical Society, August 25, at Norwalk.—John A. Sipher, M.D., secretary.

LORAIN

Dr. C. C. Sherburne, Columbus, President of the Ohio State Medical Association, was guest speaker at a meeting of the Lorain County Medical Society, September 14, at the Lorain Country Club. Dr. John Rankin delivered a memorial address for the late Dr. D. C. Barbour.—L. H. Trufant, M.D., secretary.

RICHLAND

Dr. Ross Knoble, Sandusky, Councilor for the Eleventh District, was guest speaker at a meeting of the Richland County Medical Society, September 16, at the Shelby Country Club. The dinner meeting at 6:30 was preceded by golf and other entertainment.—J. F. McHugh, M.D., secretary.

Woman's Auxiliary News

Butler County

The Woman's Auxiliary to the Butler County Medical Society cleared \$50 on the raffling of a student nurse doll. Chances were sold at ten cents each. Proceeds are to be used for the tuition of the county's student nurse.

Knox County

Membership of the Knox County Auxiliary totals 19, of whom seven are wives of physicians serving with the armed forces. Six of these wives are with their husbands. The Auxiliary meets on the first Wednesday evening of each month, and has an average attendance of 12. In addition to Red Cross sewing at each meeting, there is a guest speaker on some interesting subject. All members work on Red Cross sewing or knitting. Two have taught home nursing classes, and another supervises a surgical dressing unit. Many have worked on Civilian Defense committees and War Bond drives. Each member is purchasing War Bonds. The Auxiliary has contributed to Red Cross and Infantile Paralysis fund campaigns. *Hygeia* subscriptions have increased 40 per cent over last year. Following each meeting letters are sent to members who are with their husbands in the service.

Mahoning County

The January and February meetings of the Mahoning County Auxiliary were devoted to making surgical dressings at the Red Cross rooms. At the March meeting papers were given by

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members on "History of Medicine" and "History of the Red Cross." A report was given of Mahoning County physicians in the service, their addresses and excerpts from letters. "New Things in Medicine and Surgery," was the topic of an address made by a local physician at the April meeting. A bridge benefit for the local U.S.O. and Red Cross Canteen was given in May. The Auxiliary sent a year's subscription to *Hygeia* to each of 22 senior high schools in the county. The next regular meeting will be in October.

Richland County

Members of the Woman's Auxiliary to the Richland County Medical Society have been given the responsibility of keeping an inventory and record of all equipment and supplies in the local O.C.D. casualty stations. Two or more members are on duty at the stations during air raid alarms and test black-outs. For the past three years members of the Auxiliary have been active in making surgical dressings at the Red Cross Production center. The Public Relations Chairman has contacted all of the 40 local clubs, and with the permission of the Advisory Board of the Richland County Medical Society, physicians will be furnished to talk to these clubs on medical education. There have already been a number of requests. The Auxiliary came out tenth in the November, 1943, bond drive and 13th in the April campaign, a very creditable showing since all the women's clubs participated in the drives.

Scioto County

The Woman's Auxiliary to the Hempsted Academy of Medicine at Portsmouth has a number of permanent activities. They include: assistance to the class for crippled children, by saving sales tax stamps for their Circus Fund, acting as escorts for children to the circus, reading stories and supplying games, books and handicraft materials; annual tea for nurses; service at the Red Cross Canteen; radio program, "Fifteen Minutes with Hygeia", over radio station WPAY, once each month; representative on each of the following local health committees: social hygiene, study of unmarried parenthood, care of mothers and baby, and the Scioto County Tuberculosis Society. The Auxiliary contributes \$50 yearly to the Student Nurses Fund, plans an annual picnic and furnishes transportation for student nurses, provides speakers for meetings of various health groups, collects magazines for colored community center and holds rummage sale in cooperation with colored churches to raise money for charity health work.

Hamilton—Dr. and Mrs. Mark Millikin recently celebrated their golden wedding anniversary.

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The American Bar Association at its 66th Annual Meeting in Chicago, approved a resolution opposing any legislation now before Congress, which "seeks to establish federal control of the medical profession, and the regimentation of doctors and hospitals".

* * *

Guest speakers at the One Hundred and Second Annual Meeting of the State Medical Society of Wisconsin, September 13-15, at Milwaukee included Dr. Marion A. Blankenhorn, professor of medicine, and Dr. John Romano, professor of psychiatry, University of Cincinnati College of Medicine. Dr. Blankenhorn spoke on "Differential Diagnosis of Jaundice," and Dr. Romano discussed "Psychiatric Problems Arising from Military Service."

* * *

Cases of poliomyelitis reported to the State Department of Health from January 1 to September 16, 1943, numbered 108, as compared with 96 for the same period in 1942.

* * *

The *Chinese Medical Journal*, which suspended publication when the Japanese took over the offices of the Chinese Medical Association in Peking in December, 1941, is now being issued at P.O. Box 6096, Washington, D. C., as a quarterly, since printing and circulation facilities in Free China are inadequate. The medical profession in China still has its Chinese edition. The publication of *The Journal* in the United States has been made possible by the assistance of the Chinese Foundation.

* * *

Dr. E. Perry McCullough, Cleveland, spoke on "The Use of Gonadal Hormones in General Medical Practice," during the Ninety-Fourth Annual Meeting of the Indiana State Medical Association, September 28-30, at Indianapolis.

Dr. Edward J. McCormick has resigned as president of the Toledo Board of Health. In a letter to Mayor Lloyd E. Roulet of Toledo asking to be relieved of his duties Dr. McCormick informed him that he had recently moved from his Toledo residence to the Village of Ottawa Hills, thus making him ineligible to continue on the board.

* * *

The plan for the new Health Council of the Columbus Council of Social Agencies provides that eight members shall be named by the Columbus Academy of Medicine and that an additional eight shall be named by the Council of Social Agencies.

* * *

Major Max T. C. Schnitker, M.C., A.U.S., formerly of Toledo, spoke on the "Diagnosis and Treatment of Acute Head Injuries and Peripheral Injuries," during the Fifty-First Annual Meeting of the Idaho State Medical Association, August 30-31, at Boise.

* * *

The Seneca County Tuberculosis Hospital at Tiffin has been closed due to a marked decrease in patients as well as the manpower shortage, according to newspaper reports.

* * *

Dr. Victor Johnson, Chicago, is the new Secretary of the Council on Medical Education and Hospitals of the American Medical Association. He was formerly associate professor of physiology and dean of students in the division of biological sciences, University of Chicago.

* * *

The average length of life of the American people has increased by almost one-third since the beginning of the century, according to the *Statistical Bulletin* of the Metropolitan Life In-

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surance Company. Expectation of life at birth in 1941 was 64.36 years—a gain of more than 15 years since 1901. As a result of the current favorable health situation, about 60 per cent of the large crop of babies now being born will live to attain age 65, while in 1901 only 40 per cent would have been expected to attain that age.

* * *

Dr. Charles D. Aring, associate professor of neurology of the University of Cincinnati College of Medicine, has been made a member of the editorial board of Archives of Neurology and Psychiatry.

* * *

Dr. Ezra Burnett, veteran Delphos physician, was the sole representative of the Class of 1893 of the Ohio State University College of Medicine, at its 50th reunion held in Columbus during Ohio State's recent commencement.

* * *

Dr. A. Ashley Weech, professor of pediatrics, University of Cincinnati College of Medicine, was one of the guest speakers at the 78th Annual Meeting of the Michigan State Medical Society, Sept. 22-24, at Detroit. He discussed: "The Challenge of Postwar Pediatrics."

* * *

Guest speakers at the Thirteenth Annual Conference of the Oklahoma City Clinical Society, October 18-21, will include two members of the faculty of Western Reserve University School of Medicine: Dr. John A. Toomey, clinical professor of pediatrics, and Dr. Chas. T. Way, assistant clinical professor of medicine.

* * *

Members of the Gallia County Medical Society are sponsoring a fund for the beautification of the Gallipolis City Park as a memorial to the late Dr. G. G. Kineon, superintendent of the Ohio Hospital for Epileptics. Dr. Kineon was president of the park planning commission.

* * *

Eight young Latin-American physicians recently took a brief course at Western Reserve University School of Medicine to aid them in fighting leprosy and other tropical diseases.

* * *

During the week of October 24, the entire second floor of the Cleveland Health Museum will be given over to a special arrangement of health exhibits in connection with the celebration of the 100th anniversary of Western Reserve University School of Medicine. This special Centenary Exhibit will be under the direction of Dr. Howard Dittrick. The theme will be the history of medicine, with special emphasis on the Cleveland scene and educational and public health activities.

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The Physician's Bookshelf

Nutrition and The War by Geoffrey Bourne, D.Sc. (\$1.50, *Macmillan Company, New York City*) is a revision of the American edition by this distinguished British authority. It is a simple book designed to help the housewife in times of shortage and high prices.

The Human Hand by Charlotte Wolff, (\$3.00, *Alfred A. Knopf, New York City*) sets forth a method of analyzing hands as it was developed on the basis of her own studies begun years ago in Germany and now continuing at the University of London. The book is recommended by Dr. Stevenson, the Assistant Director at the Institute of Experimental Psychology in Oxford University. The author has been trained in the ways of science, both as a physician and as a psychiatrist and we have Dr. Stevenson's word for it that she can make good on hand reading as a reason and scientific study. The book is most stimulating.

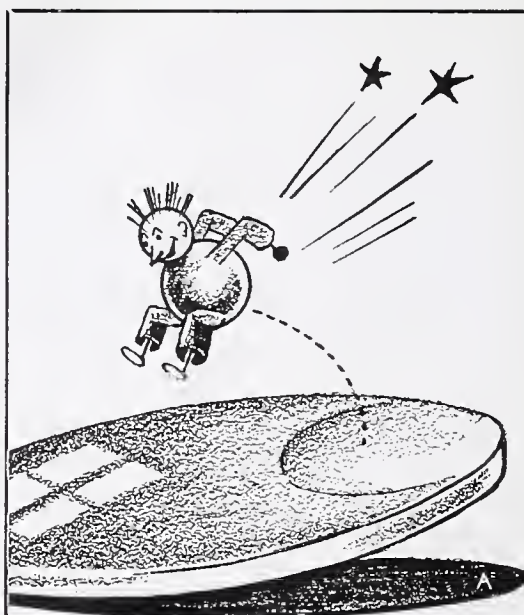
Medical Leaves, A Review of the Jewish Medical World and Medical History, Volume V, (\$3.00, *Medical Leaves, Inc., Chicago, Ill.*) consists of nearly 200 pages of interesting reading about Jewish physicians, Jewish hospitals and the diseases of the Jew.

A Synopsis of Diseases of the Skin, by Richard L. Sutton, M.D., and Richard L. Sutton, Jr., M.D. (\$5.50, *C. V. Mosby and Company*) gives in compact form a general view of the subject. Excellently illustrated, it is well worth having. It would make a most excellent gift to a physician in the Army.

Urology in General Practice by N. F. Ockerblad, M.D. and H. E. Carlson, M.D., (\$4.00, *The Year Book Publishers, Inc., Chicago*) represents the type of book that warms your reviewer's heart because it presents in a clean-cut fashion the opinions and experiences of the authors. Dogmatic and without documentation. We need more books like this one.

A Manual of Cardiology by Thomas J. Dry, M.D., (\$3.00, *Saunders, Philadelphia*) is an attempt to simplify the problems of heart disease. The success of this attempt makes this manual most helpful.

Doctors in the Making, The Art of Being a Medical Student, by A. W. Hamm and M. D. Salter, (\$2.00, *J. B. Lippincott Company, Philadelphia*). These two graduates of the University of Toronto have interested themselves in study methods and the other factors that guarantee success as a medical student. They go into not only such matters as native ability and academic preparation but more extensively into



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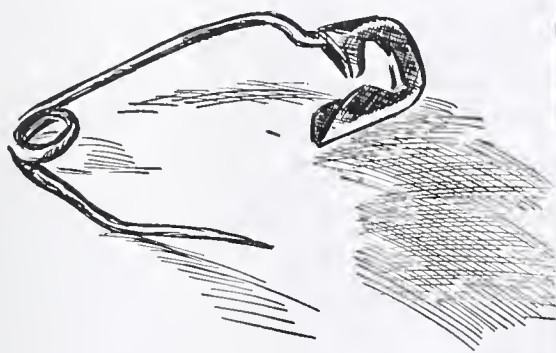
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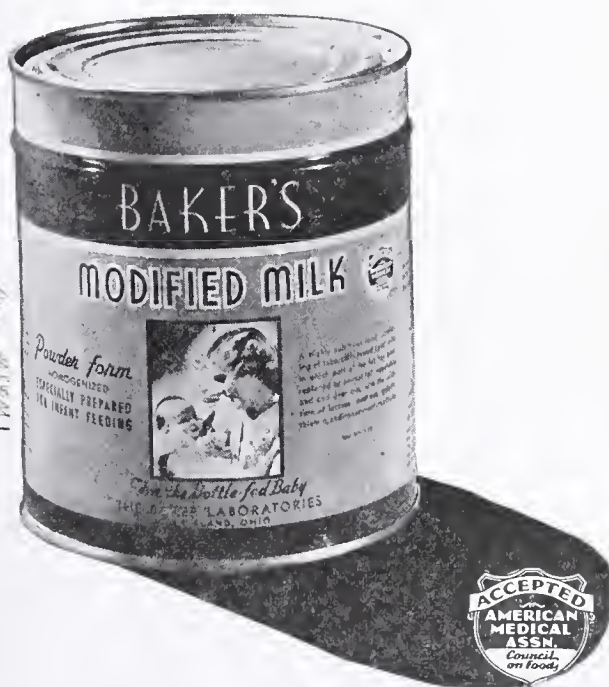
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the motives and mental equipment, habits of study, attitudes. Much emphasis is placed on how to develop skill in learning, a point which your reviewer has continually emphasized to his students. You can not be more helpful to any medical student of your acquaintance than to put this little volume into his hands.

The Interaction of Drugs and Cell Catalysts by Frederick Berheim (*Burgess Publishing Co., Minneapolis*). This monograph has for its purpose a review of the literature bearing on the correlation between enzyme and pharmacological action of drugs. Answers are sought to the question (1) If a drug alters the activity of a specific enzyme in vitro, how far can the pharmacological effects of the drug be explained on this basis? and (2) If an enzyme inactivates a drug in vitro can this explain its fate in the body?

Injuries of the Skull, Brain and Spinal Cord. Neuro-Psychiatric, Surgical and Medico-Legal Aspects. Edited by Samuel Brock, M.D., (\$7.00, *The Williams and Wilkins Company, Baltimore, Md.*) Is a revised and enlarged second edition of a most complete text. It will serve the numerous doctors in virtually every branch of the medical profession whose new responsibilities require a more thorough knowledge of the various aspects of head injuries.

Atlas of Obstetric Technic by Paul Titus, M.D., (\$7.00, *C. V. Mosby, St. Louis*) undertakes to present in pictorial form, with short titles the subject of modern obstetric technic now accepted as standard for normal and operative deliveries as well as for the various complications of pregnancy and the puerperium. It is a masterly contribution to visual education. All of the splendid illustrations are from the skillful hand of Miss E. M. Shackelford, medical illustrator for John C. Oliver Memorial Research Foundation.

William McDougall, M.B., D.Sc., F.R.S., A Bibliography by Anthony Lewin Robinson (\$1.50, *Duke University Press, Durham, N.C.*) is a compilation of a list of the 212 books and articles from the pen of this great psychologist, together with a brief outline of his life.

Skin Grafting of Burns. Primary Care. Treatment. Repair, by James Barrett Brown, M.D. and Frank McDowell, M.D., (\$5.00, *J. B. Lippincott Company, Philadelphia*) is intended to be a concise yet reasonably complete, description of the subject as it is being done at Washington University Medical School. It is a most timely and worthwhile contribution to the present day surgical literature.

Principles and Techniques of Nursing Procedures by Sister Mary Agneta Clair Day, B.S., M.S., S.S.M., R.N. (\$3.50, *C. V. Mosby Company,*

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*From tests published in Proc. Soc. Exp. Bio. and Med., 1934, 32, 241-245
Laryngoscope, 1935, XLV, No. 2, 149-154*

St. Louis) is a textbook of professional practice by the Sister in charge of institution of medical nursing in the St. Louis University School of Nursing. The book should appeal to all because of its genuine bedside interest in the sick person.

The New Chemical Formulary by H. Bennett, (\$6.00, Vol. VI. *Chemical Publishing Company, Brooklyn*) is a collection of valuable, timely, practical, commercial formulae and recipes for making thousands of products in many fields of industry. It covers everything from adhesions to substitutes; from abrasion paste, dental to zinc sulphate, substitute for. A handy and dependable volume.

Walter Reed, Doctor in Uniform, by L. N. Wood (\$2.50, *Julian Messner, Inc., 1 W. 40th St., New York City*) marks the return of the author to book-writing after twenty years. She tells the story of this remarkable physician in a dramatic and most effective manner.

Your Arthritis. What You Can Do About It, by Alfred E. Phelps, M.D., (\$2.00, *Wm. Morrow and Company, New York City*) is a practical and helpful book for one who suffers from arthritis. It tells how the patient can cooperate with his physician to help speed effective treatment and tells him about all the little things that may be done in the home to help.

Psychology and Human Living by Walter C. Langer, for the Commission on Human Relations, (\$1.75. *D. Appleton-Century, New York City*) is one of a series of books attempting to help young people and their parents to understand and to do something about the complex problems of human relations today.

Hope Deferred by Jeanette Seletz, (\$2.75, *Macmillan, New York City*) is the work of a young author who has trailed medical students from laboratory to laboratory, from hospital to hospital, from medicine to surgery to the morgue. In "Hope Deferred" everything that can, does happen. If you have reached the age-level of your reviewer, you will enjoy living your life over again for about five hours—unmindful of rationing, strikes, or even the war, itself.

Nutrition and Diet in Health and Disease by James S. McLester, M.D., (\$8.00, 4th Edition. *Saunders, Philadelphia*) has been brought up to the minute. It is important for us to have such a book as this because the advances in this field have been both rapid and startling.

A Guide to Practical Nutrition, edited by Michael G. Wohl, M.D. and John H. Willard, M.D. (Complimentary. *The Philadelphia County Medical Society*) presents a series of articles on nutrition, sponsored by the Society's Committee



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A Manual of Clinical Therapeutics. A Guide for Students and Practitioners, by Windsor C. Cutting, M.D., (\$4.00, *Saunders, Philadelphia*) is presented in a compact and practical manual. It represents a rational and systematic thinking about medical treatment.

* * *

Medical Services in Industry

The war has compelled many Ohio physicians to become interested in industrial medicine, either because of new jobs which they have undertaken or because they are substituting for someone who has joined the Armed Forces. With the great expansion of industry in war time effort, this all becomes much more important to the health of the community.

One of the things that each of us needs who is beginning to take an interest in industrial medicine and even some who have been in the field for a while is a bibliography; just what has been written on the subject; just what should be read? What is the latest thought in regard to such problems as medical services in industry, medical departments in war industry, nutritional programs for industrial employees, the feeding of war workers?

These busy days it is too time-consuming to look up this topic in the library without assistance and it is rather a new topic to many librarians. All of this makes it a pleasure to call the profession's attention to a series of Industrial Relations Digests published by the Department of Economics and Social Institutions at Princeton University.

This department with the aid of the University's library experts has given us an excellent bibliography on industrial medicine by which we can at once get the very latest material, whether published in medical journals, trade journals, or magazines devoted to industrial medicine. The recommendation of various committees of medical associations on this bibliography is presented in an 11-page mimeographed folder for 10 cents.

Bulletin No. 70 entitled "The Feeding of War Workers, Selected Annotated Bibliography," is a most helpful pamphlet of this kind. A copy of it can be secured for 25 cents. Then there are two pamphlets devoted to nutritional programs for industrial employees and the question of medical departments in war industry, both of which are digests of the more recent literature. They will be found most useful for work in companies which have had rapid expansion due to war orders. They are based on material received cur-

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rently from a large number of representative companies and may be secured for 20 cents. It would be our thought that everyone interested in industrial medicine should get themselves on the mailing list of the Industrial Relation Section, Department of Economics and Social Institutions, Princeton University, Princeton, New Jersey, so that they may get these and other pamphlets which will prove most valuable to them in their day's work.

Postgraduate Nutrition Assembly

The Institute of Medicine of Chicago will present a postgraduate assembly on Nutrition in Wartime at the Palmer House, Chicago, Wednesday and Thursday, November 17-18. The program will include five addresses by recognized authorities on each of two mornings, and on one afternoon; six panel discussions on the afternoon of the second day; a "Nutrition Information Please" program on the first evening, and the first William Hamlin Wilder Memorial Lecture by Dr. Russell M. Wilder, chief, Civilian Food Requirements Branch, War Food Administration, Washington, on the evening of the second day. Topics will include phases of nutrition that are of particular interest to practicing physicians, dentists, nutritionists and dietitians. There will be no fees of any kind and all members of the above professions in the Midwest are invited to attend. A complete program and registration blank can be secured by addressing: The Institute of Medicine of Chicago, 86 East Randolph St., Chicago, 1, Ill.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Bertha C. Moore, and Dr. James M. Anderson, both of Columbus; Miss Barbara Ann Murray, Lorain, and Lt. Daniel A. Brody, Youngstown; Miss Agnes Rita Noll, Somerset, and Lt. (j.g.) Michael Paul Clouse, Jr., Dayton; Miss Isabelle Alice Urling, Columbus, and Dr. Jack R. Cooper, Dayton; Dr. Jane Hoopes, Cincinnati, and Dr. Karl Hefti, Evansville, Indiana; Miss Dorrit Ramona, San Diego, California, and Dr. Thomas M. Hughes, Columbus; Miss Pauline Crawford, Marietta, and Dr. M. W. Livingston, Sunbury; Mrs. Cecilia S. Catellier, Los Angeles, California, and Dr. John Meserve, Norwood; Miss Carolyn Rader, Toledo, and Dr. Carl Roth, Columbus; Miss Eleanor Garman, Akron, and Dr. Elden M. Rowland, Alliance; Miss Eloise Hewitt, Sedalia, and Dr. George Wallace Ryall, Cleveland; Mrs. Mary B. Sharp, and Dr. C. L. Tinker, both of New Philadelphia.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 30

November, 1943

No. 11

JONATHAN FORMAN, M.D., *Editor*

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GEORGE H. SAVILLE, *News Editor*

Some Neglected Aspects of Office Gynecology

LEONARD H. BISKIND, M.D.

DURING years of careful listening to the complaints and histories of many patients, the author has been impressed with the overwhelming neglect by physicians of some of the fundamentals in the approach to certain gynecologic problems.

The professional relationship between the gynecologic patient and the physician is probably one of the most personal in any branch of medicine. Embarrassment, timidity, anxiety or fear on the part of either physician or patient will prevent free discussion of the patient's problem. In addition physicians have a tendency to assume that the average woman somehow "inherits" or otherwise acquires certain basic knowledge as to the anatomy and physiology of her sex organs. Except in rare instances she does not learn the most obvious fundamentals either from her mother, from her friends or in sex hygiene classes in school and the average woman is not physically introspective. As a result, when she consults her physician about a gynecologic problem, she often covers up this lack of knowledge and represses some fundamental information necessary and vital to the treatment of her condition.

Based on his experience the author has found it advisable to assume that the average gynecologic and obstetric patient is ignorant of certain simple, yet vital facts regarding her sex anatomy and physiology. He therefore discusses these factors freely and openly with every patient. The results have been highly gratifying; almost every patient voices deep appreciation for her first clear understanding of many facts about

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her sex organs that formerly were perplexing. This paper is an attempt to clarify in some measure these neglected aspects of gynecology.

THE VAGINAL DOUCHE

Usually in prescribing a vaginal douche the physician simply tells the patient to "take a douche". The effect obtained is often valueless since it is wrongly assumed that the patient understands and knows how to douche. To obtain the desired results it is essential that the physician describe the anatomy of the vagina and the cervix together with the proper technic of douching in detail.

For the sake of clarity to the lay patient, the vagina is described as a collapsed cavity compared to a deflated rubber balloon, the sides of which are composed of elastic tissue in folds and in approximation to one another. The cervix is described with particular emphasis on its normal and pathologic positions. The presence of racemose glands and their function is interpreted and the relation of the cervix to the cul-de-sac and vaults is discussed. Conditions which cause an increased activity of the cervical glands, as exemplified by pregnancy, are pictured to the patient. She

Submitted September 17, 1943.

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is told how an increase in discharge is caused and the significance of a change in its color and consistency (leucorrhea). As this leucorrhea is deposited between the folds of the vagina and in the fornices, it is necessary to prescribe douches for cleansing and treatment purposes. In order that a douche might remove all of the vaginal secretion the vagina must be distended.

The following technic of douching is described to the patient. First she must use the bathtub. Second, she must be in the semilithotomy position. Third, it is preferable that she use a douche bag or container suspended two to three feet above the level of the patient. The bag should have a rubber tube attached of sufficient length and a metal clasp for shutting off the flow when desired. A hard rubber, slightly concave vaginal douche tip having a bulb-like end with a row of holes around the periphery producing a spray is preferred. The actual technic of douching is simple if a few rules are observed. The douche tip should be inserted into the vagina in an oblique downward direction following the normal slope. The thumb and index finger are used to close the labia over the douche tip to prevent the outflow of water. The clasp is opened, allowing the water to flow into the vagina until a sense of pressure is felt in the region of the symphysis. At this point the vagina is considered fully distended and the clasp on the rubber tube is closed. The water is held in the vagina for 15 to 20 seconds and the labia are then released. This permits the vagina to be emptied. The procedure is repeated as often as is necessary to use up the prescribed amount of douche solution.

It has been the author's practice for many years to prescribe only mild antiseptics for douching in the majority of cases. A teaspoonful (level) of boric acid or one or two tablespoons of vinegar to a quart of comfortably warm water has proved quite acceptable. For resistant conditions merphenyl borate,^{1,2} (two tablespoons to a quart of water) has been prescribed with excellent results. But the medication in the douche is often of less importance than the technic. The method of distending the vagina already described may be employed also to bring heat to the pelvic organs.

Frequently patients ask the question, "How often shall I douche?" Normally, daily douching is neither necessary nor essential. Many married women douche as often as they bathe, without deleterious effects. Other women douche only following the menses and after the use of contraceptives. When a douche is prescribed by the physician, it should be done properly and as often as indicated, and a few minutes of explanation will do more for the patient than pounds of douche powder purchased at the neighborhood drug store.

The question as to whether improper cleansing of the anal region may be the source of secondary vaginal infection has been much debated. It is the author's opinion that improper cleansing of the anus will eventually lead to a change in the amount, color and consistency of the normal vaginal discharge. In any event, infection in the vagina with any organism as the offender is definitely the result of contamination.

The author has made it a rule for many years to discuss perineal cleanliness with each and every patient on her first visit to his office no matter what the complaint, the findings or the treatment. The patient is asked to examine her external genitalia and their relationship to other structures of the perineum. She is cautioned against improper anal and urethral cleansing. In anal cleansing, the method must be away from the introitus and must never be done in a forward upswing motion between the thighs. In urethral cleansing it should be by absorption as in the use of a blotter; the introitus should not be dried with an upward rubbing motion. Obstetric patients are once again cautioned to pay particular attention to proper perineal cleanliness following delivery.

GYNECOLOGY AND PSYCHIATRY

The author has long felt the need of a closer relationship between gynecology and psychiatry. Mayer in 1923 discovered that 33 per cent of all new patients in the gynecologic clinic of the Mount Sinai Hospital, New York City, came to the Out-patient Department with a gynecologic problem which had no detectable physical basis. It may be assumed that at least a similar percentage of patients consult the family physician or the gynecologist with similar problems. Too often in the absence of physical disease in the pelvis the physician dismisses the patient with a statement that it is "just nerves" and thinks to himself, "There's another neurotic." Such labels are highly unsatisfactory either to the patient or to the physician and in a good many instances the label is incorrect. The inability of the physician to make a proper diagnosis does not warrant the use of the label "neurosis". In psychiatry the term is reserved for a specific group of patients. In general medicine the term is used too frequently to cover the physician's ignorance of the true functional etiology of the patient's condition.

This is a plea, therefore, for the recognition of the conditions in gynecology which are produced primarily by emotional factors, yet which cause symptoms that so resemble those produced by organic change as to be indistinguishable to the casual examiner. This recognition must be based on the acceptance by the phy-

sician of the existence of psychosomatic responses; i.e., signs and symptoms may be produced by functional disturbance as well as by actual physical disease. Such functional disturbances need not to be the result of actual outward portrayal of emotional conflict as seen in hysteria; more often these functional aberrations occur in persons with subconscious drives which arise from their inability to adapt themselves to their culture.

It is well to remember, for example, that disturbances of menstruation have their psychologic as well as physical aspects. Many psychiatrists believe that menstruation is a badge of femininity and that in all cultures up to the present women have refused femininity and have strongly envied the male. The menstrual flow has often been the badge of inferiority in the unconscious mind of many girls. On the other hand, many women having amenorrhea spend a good deal of time and money with physicians trying to regain their menstrual flow. This would tend to indicate that these women at least accept menstruation as a normal feminine process and do not envy male attributes. While these conflicting opinions may be open to criticism it would be well for the physician to bear in mind that a psychologic investigation is indicated in almost every problem associated with the menses.

What is true in matters relating to the menses is likewise true in other problems of womanhood. Frigidity and related disorders, anxiety developing as the result of marital and sexual problems, fear of pregnancy and its relation to contraception, problems in sterility and the emotional factors in pregnancy, particularly in relation to nausea and vomiting are but a few additional problems brought to the physician for his advice and help.

To discover structural disease is relatively simple. To uncover emotional conflicts based on fears, frustrations and basic character problems is relatively difficult and time consuming. The treatment of physical disease is likewise relatively simple. Psychological investigation and treatment through re-education may be beyond the province of the average practitioner and even of the gynecologist. However, every physician should be just as capable of recognizing the existence of an emotional basis of gynecologic problems as he is in recognizing the physical aspects. The gynecologist and the general practitioner see a great many women having functional disturbances. In many instances, with some additional training the physician can act as his own psychiatrist. It has been shown that often, even relatively brief and superficial psychologic therapy may produce far-reaching therapeutic results.

Much can be done prophylactically in the treatment of functional disorders in women. The eradication of many superstitions and beliefs surrounding menstruation and the sexual life of women for example will inevitably help the present generation and should prove beneficial to the ensuing generation. This education is primarily in the hands of the general physician and gynecologist.

PEDIATRIC GYNECOLOGY

Until Shaufler³ published his treatise in 1942 there were no monographs on disorders of the immature female genitalia. The literature had but "fragmentary and uncoordinated information" chiefly because of "lack of basic knowledge" of the subject.

While it is necessary to realize that the female child's genitalia is more prominent though relatively underdeveloped, the fundamental anatomy is the same as in the adult. The fundamental pathologic conditions are likewise similar but the approach to the patient as well as the form of therapy must of necessity vary greatly.

Predominately it is necessary to establish an entente cordiale between the child and physician. Friendly confidence, occasional firmness, and wariness of oversolicitous parents, are several factors which play leading roles in the understanding and treatment of the individual patient. Unless a proper approach is established it is needless to say that no form of therapy will be entirely successful. In the majority of cases that are not surgical in nature, children can and should be treated in the physician's office. Where specific care at home is required it has been the author's custom to send a visiting nurse to the home to treat the patient or to instruct the mother. For pathologic conditions seen in children of the prepuberal age and for the various forms of therapy advised for these conditions, the reader is referred to Schuffler's excellent book.

PREMARITAL ADVICE

Parents tend to bring up children in the culture of their own origin. Education and progress are therefore slow. Until recently children have been kept in almost complete ignorance of sex anatomy and physiology. Somehow or other it was assumed that the girls would naturally know the anatomy and physiology of their pelvic organs, would understand the physiology of menstruation, and would know the facts pertaining to the sexual act. Just how parents expected female children to know this information is not quite clear. Physicians and educators appear often to have assumed a similar attitude. It is amazing that in the culture in which we now live there should be

such an enormous amount of marital unhappiness because of ignorance of female anatomy and physiology as well as of the mechanics, and of the art and psychology of sexual relationships among human beings.

It was hoped that young women about to be married would avail themselves of the opportunity of consulting a qualified physician for premarital advice. The initial step in giving premarital advice is again the securing of the patient's confidence. Emphasis should be placed on the fact that an examination of the female organs is essential to make certain that they are present and normal in size and position. The patient should be told that such an examination, either vaginal or rectal, is not painful though it might be slightly uncomfortable if it is being done for the first time. The examination should be thorough and should include both inspection and bimanual palpation. Of particular importance is a thorough search for evidence of specific infection, physical abnormalities and endocrine dyscrasias. Any abnormality which might lead to interference with the normal sexual act should be corrected if possible. Those that might interfere with child bearing should be noted. The patient should be advised of the presence of such abnormalities but she should not be frightened by pointing out to her all the dangers attendant on childbirth. Finally, all prospective brides must have blood serology tests made. This is required by law in many states.

To examine a patient and to discuss female physiology is not sufficient. Women wish instruction in sexual intercourse—in the art of coitus—and for the most part are too embarrassed to ask the physician to explain this to them. The first sex act can be very disturbing to a woman. She has heard from friends that the first coitus is painful, from others that she will experience no pleasure in the sexual act, and from still others that the act is repulsive and should be indulged in only to humor the husband. It is vitally necessary to dispel all these fears before marriage. The technique of coitus should be completely explained. It should include a discussion of psychological aspects. Repressions and fears based on childhood conceptions, traumatic experiences, and the like, should be explained away if possible. Obviously it is impossible for a physician to cover this problem adequately in one visit with the patient. At the very least, two are required, and if in addition the patient desires the diaphragm type of contraception another office visit should be necessary.

No discussion of premarital advice should be complete without a conference with the prospective husband. It is well to point out to him

enough of the anatomy and physiology of the female to assist him in making coitus a co-operative act. He should understand that in women the length of time required to reach an orgasm is far greater than in men and requires a much longer period of stimulation; the physiologic basis of menstruation should be briefly explained to him.

CONTRACEPTION

Contraception in one form or another has been a social practice since antiquity. Only in the last century and particularly in the last two decades has there been any organized effort to help society acquire a knowledge of scientific contraception. It is not in the province of this paper to discuss the moral, ethical and religious values involved, but rather to point out the most acceptable means of contraception for the female, together with a brief discussion of the mechanics, and to make mention of some of the psychological aspects. In discussing the latter, Menninger¹ has pointed out that "Clinical experience brings us as psychiatrists to the very definite conclusion that while in lower animals sexual pleasure is primarily a means to an end, in human beings it is not only a means to an end but a very important end itself". To make this end in itself a truly satisfactory one it becomes necessary to remove from any sexual union the fear of pregnancy where pregnancy is not desired, and especially when it is contraindicated as being hazardous to the health or life of the woman. This can be accomplished only by proper instruction in the art and mechanics of contraception.

Devices used by women to prevent conception include douches, spermicides and mechanical devices. The only satisfactory type recommended by the author is the use of the diaphragm with a good spermicidal jelly. The patient is first examined vaginally to rule out the presence of vaginal obstruction. Using fitting rings (which are furnished by a number of manufacturers) the proper size is determined. To be properly fitted the largest size must be used which will fit beneath the cervix posteriorly and behind the symphysis anteriorly and which will hug the lateral walls of the vagina, and to whose presence in the vagina the patient is totally unaware. For multipara, in whom cystoceles and rectoceles may exist, most manufacturers supply special types and sizes which allow the fitting of practically all women in the child-bearing age. On determination of the proper size, the patient is instructed in the method of applying the spermicidal jelly or cream to the rim and the concavity of the diaphragm. She is shown how to insert the diaphragm both manually and with the use of a plastic or metal inserter.

This is followed by the insertion of a specified amount of cream to cover the convexity of the diaphragm through the use of a plastic applicator. This then serves to give the patient a four-fold protection against pregnancy with a probable efficacy of 98 to 100 per cent.

The author has found it extremely helpful to show the patients models of the female genitalia and to give each patient a series of illustrations clearly demonstrating the method of insertion and removal of the diaphragm. Maternal health clinics advise the retention of the diaphragm after coitus until the patient arises in the morning. She then removes the diaphragm, being instructed as to the proper method of removal. A cleansing douche completes the procedure.

No effort is made herein to describe the various other forms of contraception. Reference to any one of many excellent monographs on the subject will give the reader ample information.

There are certain psychologic aspects of the birth control problem which have not been given sufficient attention by the medical profession. Considerable attention has been paid to birth control from the standpoint of maternal health, infant morbidity and population control. Much less or little attention has been paid to those aspects related to the field of psychiatry which warrant increasing support for a planned parenthood program.

Planned parenthood obviates the birth of an unwanted child. As Menninger⁴ so aptly points out, "Nothing is more tragic than, more fateful in its ultimate consequences than the realization by a child that he is unwanted. . . . The unwanted child become the undesirable citizen, the willing cannon fodder for wars of hate and prejudice".

SUMMARY

Office gynecology consists not only of the diagnosis and treatment of common gynecologic disorders but includes the recognition and treatment of functional conditions as well. In general, gynecologic patients are ignorant of certain simple and vital facts regarding their sex anatomy and physiology.

When embarrassment, anxiety, timidity and fear exists, a thorough understanding between patient and physician is impossible. The majority of gynecologic patients do not know how to douche properly nor are they aware of the proper methods of anal and urethral cleanliness.

The necessity for the recognition of functional disorders in women is pointed out and the prophylaxis and treatment of these conditions are discussed.

A proper approach in pediatric gynecology is essential for successful therapy.

Premarital advice by trained physicians should be made available to proper age groups.

Proper contraceptive methods must be taught by physicians.

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General Care of the Aged

The family physician can best care for the aged in his community. He has known these people for years. He can advise and direct them. Care of the aged will be a large part of medical practice in the future; care for the aged workers that they may continue at work and for the helpless that they may be comfortable.

The question of exercise for the aged is one that should be discussed with each patient. The aged worker may be getting enough exercise. The ambulant patient should have exercise fitted to his case. As a general rule strenuous exercise after sixty is not beneficial and may be harmful. Too often the aged person will want to prove himself strong and well. He may overdo and the result may be bad. Such a person should have advice on the matter and he should be told that no exercise or system of exercises will bring back wasted aged muscles or keep them from wasting. Exercise never has brought back a failing heart to normal and does not delay any of the other changes due to involution. There is danger in sudden spurts of exercise and some patients will experience shortness of breath, chest pain or pain in the legs. These are warnings. In the North we have the example of sudden death shoveling snow, pushing a stalled car, or other sudden overwork when the temperature is very low. Moderate exercise is of decided benefit and has the added value of getting the patient into pleasant contact with others.

Rest periods should be regular and the old person should have good noon time rest. A long night's rest should be the rule. These rest periods should alternate with exercise, graduated to the condition of the patient. Every effort should be made to prevent these people from becoming bed ridden. The patient with a circulatory handicap would require more rest as would one who has any other disabling illness.—J. F. Norman, M.D., Crookston; *Minn. Medicine*, Vol. 26, No. 10, October, 1943.

French Method of Reducing Subluxation of Shoulder

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SIX years ago a man was brought to Hale Hospital suffering with Luxatio Erecta (very rare) which means that the arm was dislocated and locked in the upright position.

Under light anesthesia, it was easily reduced by making slight traction upward on the wrist parallel to the long axis of the body. The arm was then swung outward through a semi-circle maintaining pressure on the head in the axilla with the other hand.

It made me wonder if the ordinary dislocation of the shoulder could be converted first into a Luxatio Erecta type then reduced as described above. This I have been able to do over a period of six years. First the patient is assured following X-ray that your manipulation will cause him no pain although he may be suffering from shock and very nervous. Then gently lift the arm by the wrist, hand in pronation until the arm is in erect position above the head. There may be a slight snap and the patient exclaims, "It is in." At this stage we make a second film which often reveals complete and always partial reduction, the latter being finished by gentle traction then swinging the arm through the frontal plane to the side of the body.

Recently Mrs. Q., a temperamental nervous woman, and Corporal B. of the U.S. Glider Test Field, Wilmington, Ohio, in shock and severe muscle spasm had their luxations reduced without pain or anesthetic by means of the first step of this simple, gentle manipulation. See X-ray films for the corporal.

Instead of binding the arm to the side, we place a cuff above the elbow. A cord long enough to permit abduction to 45 degrees connects the cuff and body belt. A husky bridge blacksmith has successfully worn this arrangement while at work for four years having suffered many dislocations previously. I reduced his shoulder twice by the French method before resorting to a hobble.

We treat our patients on the X-ray table. Some sit the patient on the floor.

Capt. William Regan, on whose patient we first tried the above method, successfully used it on his own patients before entering the army. While home on a furlough recently, he reported its use on five or six cases in his camp. He demonstrated the method on a patient in which the usual procedure had failed. It seems the

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medical officer adopted it with enthusiasm and success on other patients, no anesthetic being required.

A careful review of the literature at Cincinnati General Hospital Library shows this method was used both in England and France long before the time of Kocher. By some it was called the French method in derision. A pioneer surgeon¹ of Columbus, Ohio, published Kocher's technique years before the latter's famous article was published.

I think it would be a fitting tribute to a gallant but fallen ally and friend if the French method of treating subluxation of the shoulder



Fig. 1. Corporal B. Shows dislocation of left shoulder.



Fig. 2. Corporal B. Shoulder reduced following simple elevation of arm to erect position without any traction. The arm was then returned to normal position as described.

were studied and adopted by American physicians, army, navy, etc., for many shoulder luxations will be suffered before peace is won.

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Treatment of Chronic Osteomyelitis

Old cases of osteomyelitis do not present themselves during the acute stages, and many of the patients are received who have reached the period of chronicity. An outline of their treatment follows:

The general condition is determined, especially in regard to a possible amyloidosis. If the condition is satisfactory, then the local area is given consideration. An X-ray study is made, and if necessary the sinus is injected with lipiodol.

As much scar tissue as possible is excised. This is sometimes difficult in the popliteal area and the pelvis.

Thorough planification of bone involved is carried out.

a. Thorough washing of the cavity is accomplished, drugs are applied and primary closure executed. b. Vaseline gauze packs and casts are used. (Orr method).

Casts are changed if the Orr method is followed, with the removal of sutures and re-dressing, using elastoplast to maintain the dressings in position, if the drug method is followed.

If a small sinus should result, it is treated in the same manner as above, limiting the treatment to the small area involved.

We feel that a most important phase of the treatment of osteomyelitis is that which follows the cessation of the active bone infection. This stage presents itself in the form of corrective procedures to allow the patient to be relieved of any future disability from unsightly scarring and bony defects which interfere with the function of the individual.

The problem of covering services which have healed over with thin, easily traumatized scars should be satisfactorily solved. This is particularly applicable to such surfaces as the tibia and the ulna.—G. W. N. Eggers, M.D., and Maynard D. Knight, M.D., Galveston; *Texas State Jour. of Med.*, Vol. XXXIX, No. 5; September, 1943.

Removal of Glass Drinking Tube from Abdominal Cavity

Case Report

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THE patient, a 24-year-old colored girl, called at my office on August 25, 1943, with the complaint of abdominal pain and cramps in the left iliac fossa. Her health had been good and she was able to attend her household duties prior to this. She had been under medical care for this complaint and the symptoms were interpreted as stomach trouble.

The first symptom appeared on April 1, 1941. The patient had attempted an abortion, after missing her period for three months. This was done in the following manner: She obtained a glass tube, twelve inches long and one-fourth inch in diameter, which was sharp and pointed on one end. This was inserted into the vagina, in hope that it would puncture the uterus, but instead it was forced into the posterior fornix and through the cul-de-sac into the abdominal cavity. Suddenly the tube broke, leaving four and three-fourth inches of the tube in the abdomen. Later in the day there was a small amount of bright red blood, which stopped in about two hours. The following day she developed pain in the left pelvis, and 24 hours later she aborted a two and one-half month old foetus. Her recovery was uneventful.

The laboratory findings were as follows: Urine: Color: Dark Yellow. Appearance: Slightly Cloudy. Reaction: Acid. Albumin: Negative. Sugar: Negative. Epithelium: Few. Pus Cells: Occasional.

Blood: Coagulation Time: 3 minutes. Erythrocytes per c. mm: 3,830,000. Leukocytes per c. mm: 8,100. Large lymphocytes: 56%. Large mononuclears: 2%. Polynuclear: Neutrophils: 38% Eosinophiles: 2%. Ascheim-Zondek Test was positive. Wassermann and Kahn were both negative.

There is a normal conformation throughout the chest. The breasts are well developed, being ovoid in shape and firm. The heart and rest of the chest are negative. The blood pressure is 126 systolic and diastolic is 75.

The abdomen is slightly below the level of the chest. There seems to be a slight fullness in the left pelvis extending to the umbilicus. There is a palpable mass six and one-fourth inches in length and about one and one-half inches in width. The lower end seems to be adherent in the left pelvis. The upper end seems to be freely movable and hard. The borders seem round and soft.

Rectal examination proved negative.

On vaginal examination the perineum was normal. No rectocele or cystocele was present but a small round mass was palpable in left iliac fossa. The cervix was long and soft. The uterus was three and one-half inches above the pubes and appeared to be three months pregnant, but was not freely movable. It seemed to be adhered into the cul-de-sac.

As I have stated before the size of the uterus did not tally in growth with the time of her last menstruation.

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The patient came to me August 25, 1943. On August 30, 1943 she was sent to the hospital and prepared for surgery. Upon preparation she was taken to surgery and opened under a spinal anesthetic.

A midline incision was made, extending from the umbilicus to the symphysis. The abdomen was opened in the usual manner. After inserting the mechanical retractor, I inserted my hand into the abdominal cavity down to the left iliac fossa. I noticed that the omentum was rather thickened and drawn to the left iliac fossa and attaching itself to the under surface and side of the uterus and the pelvis proper. I followed this thickened



omentum to the level of the umbilicus, the outside of which was soft and pliable and the inside hard and unyielding. I made an incision into the anterior surface of this where I felt a hard, long stem. I then increased the size of my incision to the length of about four inches. I removed a glass drinking tube, four and three-fourth inches long, sharp on both edges and one-fourth inch in diameter. It seemed covered with a bloody, purulent secretion. The omentum had wrapped itself around the tube. The large bowel formed the posterior wall of the canal housing the glass tube.

I filled the cavity with sulfathiazole and sutured same with black silk. I freed the rest of the omentum from the bowel. The posterior surface of the uterus seemed to be adherent in the cul-de-sac.

The appendix was also removed at this time. The abdominal cavity was closed in the usual manner.

On the third day, the patient aborted a three and one-half month old foetus. The placenta was removed manually. The patient had an uneventful recovery. She left the hospital on the 12th day.

Necrobiosis Lipoidica Diabeticorum

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THE cutaneous manifestations of visceral diseases are numerous and varied. Diabetes mellitus is associated with several cutaneous complications but none so interesting and colorful as necrobiosis lipoidica diabeticorum. This somewhat rare and unusual dermatosis was first described by Oppenheim and Urbach and originally its presence was tantamount to a diagnosis of diabetes mellitus. Since its original description about 10 per cent of the cases have been found in individuals who presented no signs, symptoms or laboratory finding of diabetes mellitus. These are the cases that have led some observers to believe that this entity is associated with a type of endarteritis while others have associated it with a form of granuloma annulare. However, many of these cases have been found in younger individuals, such as the present reported case, which might lead one to believe that diabetes is latently present and will develop later, thus making it necessary to observe these patients for many years.

Necrobiosis lipoidica diabeticorum is usually present in symmetrical distribution on the anterior surface of the lower legs but may be found on the abdomen, arms and face. It usually starts as a small yellowish red papule which slowly becomes depressed in the center and spreads peripherally with an irregular, serpiginous, and somewhat raised border. Throughout, it has an orange yellow color with numerous interwoven small telangiectatic lines which represent compensatory vascular dilatations about fibrosed and atrophic areas. Well developed lesions have a smooth, glistening, hard waxy surface. Through trauma and vascular obliteration, ulcerations may occur in the diseased portions and may or may not heal. We currently do not know whether the pathology is due to lipid degeneration in the diseased areas or whether the lipoids are brought to these parts through the blood stream and deposited there, inasmuch as fat stains show the presence of lipid substances.

The differential diagnosis includes such conditions as morphea, xanthoma, Darier-Roussy sarcoid, erythema induratum and granuloma annulare. Other suggested diagnoses such as: cutaneous amyloidosis, localized myxedema and localized acrodermatitis chronica atrophicans, could be considered.

There is no doubt that the above entities have often masked necrobiosis.

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At present no form of treatment has been advocated which might heal the skin lesion and the treatment of the diabetes when present has no influence on the dermatosis.

REPORT OF CASE

F. B., T/5, aged 31, was seen in the dermatology clinic, Station Hospital, Camp Hood, Texas, on July 16, 1943, complaining of cramps in his legs after marching two or more miles and peculiar discolorations on both legs which had been present for four years. His history was essentially negative except for the fact that he drank eight to twelve quarts of water daily and was in no way suggestive of diabetes mellitus. The patient was 5 feet 2 inches tall and weighed 171 pounds but otherwise physical examination was normal in all respects. On the anterior surface of the legs there were symmetrical glistening waxy discolorations which were sharply bordered and consisted of oval, irregular plaques and papules. The centers were slightly depressed, orange yellow in color, traversed by numerous venules and firm to the touch. There were no lesions elsewhere on the body. The following laboratory procedures are reported: the hemogram was normal and no sugar, acetone, or diacetic acid were found in the urine. Serologic reactions of the blood for syphilis were negative. The blood sugar, glucose tolerance tests, and cholesterol determinations were within normal limits. A biopsy was done on 7-24-43 and the pathological report by Paul G. F. Schmitt, Lt. Col., MC, Chief of Laboratory Service, McCloskey General Hospital, was as follows:

Gross Description: Specimen consists of an elliptical mass of tissue measuring 3.5 by 1 by 0.7 cm. It is covered on one side by skin which is yellowish gray in color. Beneath it is the subcutaneous tissue.

Microscopic: Sections reveal an atrophic epiderma, with almost complete ironing out of the rete-pegs. Scattered throughout the corium, both deep and superficial, are found multiple, minute areas of necrobiosis, and deep in the corium, there is found one area of necrobiosis the size of a low power field. In addition, there is found extensive chronic inflammatory cellular reaction

throughout the corium, and even extending somewhat into the subcutaneous tissue. The infiltration consists almost exclusively of lymphocytes, with a heavy sprinkling of giant cells in many of the areas. Some fibroblastic reaction is noted in several of these inflammatory areas, giving a somewhat chronic, granulomatous appearance. This inflammatory cell infiltration fol-



lows no definite pattern, but is found to be perivascular about the sweat glands, hair follicles and many areas, entirely disassociated from any other structures. Note is made that they definitely do not surround the necrobiotic areas. Fat stains show irregular patches of fatty degeneration.

Diagnosis: Necrobiosis lipoidica.

SUMMARY AND CONCLUSIONS

A case of necrobiosis lipoidica diabeticorum is reported which contains no personal, family history or laboratory findings of diabetes mellitus. This somewhat rare dermatosis is probably a disturbance of the lipid metabolism often associated with, but not diagnostic of, diabetes mellitus. In younger people it may represent a latent phase of that disease and should be followed for the same.

NOTE—I wish to thank the Signal Corps Photograph Laboratory, Camp Hood, Texas, for their cooperation in photographing this case.

Estrogen Assays

Equipped with an understanding of the normal estrogen excretion rates we should be able to use estrogen assays as an aid in the diagnosis of ovarian dysfunction. The early recognition of the excretion of abnormally large amounts of estrogens in pregnancy led to the use of estrogen assays as a satisfactory biological test for pregnancy. This test, though popular at one time, has been virtually replaced by the gonadal stimulation tests.

There are numerous instances where it would appear that estrogen assays would be of clinical use. Thus, in the case of many of the common ovarian dysfunctions it would be of some value to know the extent and nature of ovarian function. It should be remembered, however, that due to wide variations in normal estrogen excretion—during the cycle as well as between individuals—several successive assays must be made before any diagnostic value can be attached to such determinations.

Due to our still incomplete understanding of the mechanism of the menstruation, even thorough investigations of the estrogen excretion are of doubtful value at present. Frank's study of blood and urine estrogen levels in amenorrheic patients revealed at least three groups—one with absent or greatly diminished secretion and excretion, another with normal estrogenic concentrations and a third in which the secretion and excretion were greatly increased. These differences make even a theoretical consideration of the underlying causes of amenorrhea difficult.

Large amounts of estrogen have been found in the urine of patients with ovarian tumors of the feminizing type, particularly granulosa cell tumor. The finding of continuous, high estrogenic titres is strong evidence of the presence of a granulosa cell tumor.

Occasionally this type of tumor occurs in children before the age of puberty resulting in precocious development of the secondary sexual characters. Estrogen assays would have some differential diagnostic value in those cases where the age of the patient or the absence of characteristic symptoms rendered the diagnosis difficult.

In view of laborious procedures involved in estrogen assays and their doubtful clinical value it is suggested that other diagnostic methods be relied upon. In most instances hyper- or hypoestrinization can be detected by a thorough physical examination supplemented with endometrial biopsies or the examination of vaginal smears.—Gardner M. Riley, Ph.D., Ann Arbor; Jour. Mich. S.M.S., Vol. 42, No. 10, October, 1943.

Relapsing Fever in Korea

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THE war with Japan has increased the interest in tropical diseases. In view of the possibility that North China, Manchuria and Korea may become the route of Chinese and American troops in their march to Japan, the subject of relapsing fever in the Orient assumes added importance.

In the August, 1943, *Bulletin of the Academy of Medicine of Cleveland*, I recorded some of my "Experience with Typhus Fever" in Korea, where in 1913 we were able to convince the Japanese Health Department in Seoul, Korea, that typhus fever was existent. They had previously maintained that there was no typhus fever in Korea.

Relapsing fever is often associated with epidemics of typhus, itself also a louse-borne disease. It has been shown that relapsing fever is transmitted in West and East Africa, Spain, Persia, Panama, Venezuela and Columbia by ticks and in Europe, North Africa, India, North America and China by lice.

In China this disease was reported clinically as early as 1877 and many epidemics have since been recorded in medical literature. Graham, in the *China Medical Journal* of 1910, described an epidemic of relapsing fever among railway coolies in the Ichang region. A severe form of relapsing fever, accompanied by pronounced jaundice and a high mortality, was found by Dr. Gordon Thompson at Batang, on the Tibetan border, in October, 1924.

R. Cecil Robertson, in the *China Medical Journal*, September, 1932, made an extensive report on "Relapsing Fever in Shanghai." Hui-Lan Chung and F. C. Chang of the Medical Department of the Peiping Union Medical College, presented to the Congress of the Far Eastern Association of Tropical Medicine at Hanoi, Indo-China, in November, 1938, a clinical and statistical study of 337 relapsing fever in-patients observed in the Peiping Union Medical College Hospital from 1921 to 1937. In every instance the diagnosis was proved by the finding of the spirochaeta recurrentis in the blood of the patients.

RELAPSING FEVER IN KOREA

In Korea, as in China, the early medical missionaries observed cases of the type of relapsing fever. Dr. H. N. Allen, the first medical missionary in Korea, who was also acting as Customs Medical Officer, described in the Chinese Customs Medical Report in 1886 a fever under

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the Korean name of "Yem Pyeng" which simulated relapsing fever. Korean doctors informed me that the term "Yem Pyeng" was applied to typhoid or other infectious diseases. The Korean name of relapsing fever is "Chai Kui Yul".

So far as I can ascertain, no account of relapsing fever in Korea has been published in the English language. One of my Korean colleagues, Dr. H. S. Shim, made a report in Korean, in November, 1918, on the treatment of relapsing fever with Imamical (a mercurial preparation). He gave intravenous injections to 18 patients with relapsing fever and concluded that it was not as efficient as salvarsan.

Although relapsing fever had been clinically diagnosed in the earlier years, it was my good fortune to be the first one in Korea to find the spirochaeta recurrentis, on April 1, 1913. The first report by the Japanese in Korea was made a year later. The Korea Medical Missionary Association was in session at the time, so it was possible to demonstrate the organism to most of the foreign doctors of Korea.

The patient in whom the spirochaeta was first found was a Korean female nurse, age 20 years, admitted to the Severance Union Medical College Hospital (Seoul) March 31, 1913, complaining of chills, headache, general muscular pains, nausea and vomiting. She gave a history of one previous attack of a similar nature on March 17, 1913.

On admission to the hospital her temperature was 38°, pulse 120 and respiration 30. The following day her temperature rose to 40°.

Examination of the blood revealed spiral threads with three to six turns and pointed ends. They varied from 8 to 15 microns in length and were very slender. Some seemed much longer but these proved to be placed end to end. The spirochaetes stained well with the ordinary dye stains. We found later that the Romanowsky stain was very satisfactory when the organism

was scarce. In films of fresh blood the spirochaetes exhibited active screw-like movement and tended to form clumps.

On April 2, the day following the finding of the spirochaetes, the patient's temperature fell from 40° to 36°. After a ten day period of apyrexia the symptoms recurred and the spirochaetes were again present in the blood. No spirochaetes were found during the afebrile stage. The usual symptomatic treatment was carried out and salvarsan was given intravenously as the patient's temperature began to rise.

When I returned to Korea in July, 1940, I found this patient, who had married a Korean doctor, in excellent health. There had been no recurrence of the relapsing fever during the intervening 27 years.

During April and May, 1913, there were 30 cases of relapsing fever among 200 admissions to Severance Hospital. Although I was in charge of the Department of Surgery, I had to take over Internal Medicine during the furlough of the head of that department. Throughout the following 20 years there was a total of over 300 patients with relapsing fever. The records of these patients indicated the same general type of symptoms as those under my direct care.

With the exception of the nurse no other members of the Severance Hospital staff contracted relapsing fever. Most of the patients were from the coolie class. One epidemic occurred among the laborers working on a railway tunnel. They were quartered in small huts infested with bed bugs and lice.

Relapsing fever was of frequent occurrence endemically in the beggar group. They were often seen sitting by the road picking lice from the seams of their clothing and cracking them between their finger nails.

Age of Patients. All but three of the series of 30 patients were under 35 years of age, but no particular age group is immune to this disease.

Sex. The sex distribution was one female to ten males. The explanation is obvious as there are few females in the labor or beggar class.

Season. Relapsing fever in Korea is endemo-epidemic, and like the disease in Peiping is present throughout all months of the year but usually reaches a climax in April and May. This coincides with the seasonal rise and fall of the louse infested population.

Causative Organism and Vector. The causative organism of relapsing fever in Korea is spirochaeta recurrentis and the vector is the human body louse. We found the organism in every one of the series of 30 cases and in a few of the lice in the patients' clothes. Lice, bed bugs and mosquitoes which had fed on the blood

of relapsing fever patients all revealed spirochaetes.

I regret that I was unable to complete further experimental work due to the fact that in addition to the care of all the medical and surgical hospital patients, I had to give lectures to three classes in the Medical College, conduct the public and private clinics, do the operative work and in my spare time visit patients throughout the city of Seoul with occasional trips out of the city.

CLINICAL MANIFESTATIONS

The onset of the disease was usually sudden. The temperature rose rapidly to 40° within a couple of days. Nearly every patient complained of chilliness or chills, headache, and severe pain or aching in the muscles and bones of the back and limbs. The tongue was dry and coated. Clinical jaundice was present in half the cases.

Patients with intense jaundice showed great prostration. The prognosis in such patients was very unfavorable. When the jaundice was mild, it faded rapidly as the patient recovered. As a rule the respirations were increased, attended with some bronchitis and cough.

Pneumonia was a serious complication being responsible for the death of four patients in our series. This gave a mortality of 13.3 per cent, double the mortality rate in Chung's Peiping series. All the four patients who died were in a moribund condition and died soon after admission to the hospital.

One-third of the patients showed normal white blood counts. The leucocytes were increased during the fever but rarely beyond 20,000.

The number of febrile attacks of relapsing fever was difficult to determine. Our patients gave a history of one to three previous attacks before admission to the hospital. As a rule the temperature fell to below normal by crisis and the period of remission varied from three days to two weeks.

TREATMENT

All patients with suspected relapsing fever were deloused. No isolation was required. The clothing of most of the patients was burned and a clean suit was given them upon discharge from the hospital. The general treatment was symptomatic, the same as for any acute febrile disease. During the crisis digitalis or caffein was given to support the action of the heart. Salvarsan and its allied preparation have been regarded by most observers as specific for relapsing fever. Manson-Bahr regards novarsenobillon as the best preparation.

Salvarsan should be given by the intravenous route in dose of 0.3 gm. to 0.9 gm., according to the age of the patient and the severity of the case, the dosage being reckoned as 0.01 gm. for

each kilogram of body weight. If it is not given on the first attack, one should wait till the first relapse and then give it on the rise of temperature. If given near the time of crisis, a grave reaction and fatal collapse may follow.

Chung and Chang reported that the most annoying symptom to appear after an injection of neoarsphenamine was vomiting which was severe in 15 of their patients. Their criterion of a clinical cure of louse-borne relapsing fever was the disappearance of symptoms as well as spirochaetes from the peripheral blood for 16 to 21 days following treatment. In actual practice they had difficulty in distinguishing between a relapse and a reinfection even when a patient returned to the hospital with relapsing fever only two or three weeks after an apparently effective specific treatment for the same disease. Pending further knowledge on immunity in relapsing fever, this difficulty will continue to confront clinicians in endemic areas.

In Chung's and Chang's series of 281 treated cases, 16 patients required a second specific treatment. In our own series salvarsan was not given if the patient was near the crisis or in a state of threatened collapse. Of the 15 patients who received salvarsan injections, none had a febrile recurrence while in the hospital. Any follow-up of most of these patients was partially impossible so we cannot be sure there was no recurrence.

As there is no access to the records of the Severance Union Medical College Hospital for the duration of the war, a report on relapsing fever patients of later years cannot be given.

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Infectious Mononucleosis

The heterophile antibody or Paul-Bunnell test is said to be positive in 90 per cent of cases. In this test the blood serum of the suspected patient is mixed with the red blood cells of the sheep. A positive reaction is said to occur when agglutination in high dilution takes place. Other conditions, especially serum sickness, may give this reaction, but when a positive reaction is combined with the symptoms referred to before, one may safely consider the diagnosis of infectious mononucleosis to be reasonably accurate.—Karl Musser Houser, M.D., Philadelphia; Penna. *Med. Jour.*, Vol. 46, No. 11, August, 1943.

Benign Tumors of the Stomach

It is difficult to ascertain the incidence of these tumors. In a review of the literature we have found quite a variation in the figures quoted by different authors. Eustermann states in Portis' *Disease of the Digestive System* that a little more than 1500 benign tumors of the stomach have been reported to the present time. In 1922 Eustermann and Sentry reported 27 cases observed at the Mayo Clinic in 20 years in which the diagnosis was verified at operation. In the same period, 2,168 malignant tumors were found at operation. The benign tumors were, therefore, 1.23 per cent of all gastric tumors found at operation. Clinical diagnosis of carcinoma of the stomach was made in 2,285 additional cases during the same period. The number of benign tumors observed at the Clinic was, therefore, 0.6 per cent of the total number of cases diagnosed clinically and by operation as tumor of the stomach. In 1929 Stewart found an incidence of 0.43 per cent in 11,000 autopsies. In 1930 Hillstrom of the University of Minnesota found about 5 per cent of all gastric tumors discovered at autopsy or operation were benign. This, it would seem, is quite a high incidence for benign tumors. Kirklin and Weber reporting on a large series of cases in which careful roentgen examination was done, stated that less than 2 per cent coming under observation were benign. To the present time 176 cases have been reported from the Mayo Clinic. Root reports that based on autopsy, surgical and roentgen findings, only 17 benign tumors of the stomach have been found in 250,000 admission records at the Cleveland Clinic. Of this group 12 have been definitely proved benign by pathological examination at autopsy or surgical operation. Three of these cases were found to be neurofibromas and three leiomyomas. Shallow and Lemmon have reported 13 cases in a review of 300,000 admissions to the Jefferson Hospital, Philadelphia, in a period from 1909 to 1939. Eleven of these cases had a histological diagnosis, only one of which was neurofibroma. Mimes and Geschickter in 1936 reviewed 931 benign tumors of the stomach and reported 50 cases of their own from Johns Hopkins Hospital. Only one neurofibroma was found in their series. Dudley, Miscall and Morse recently reported 76 microscopically examined benign gastric tumors from 21,026 post mortem examinations for all causes of death at Bellevue Hospital in a period of 23 years. At the same time they reported 32 benign tumors of the stomach discovered at operation in a period of ten years in the same hospital.—Stanley T. Simmons, M.D., and Foster D. Coleman, M.D., Louisville; *Ky. Med. Jour.*, Vol. 41, No. 10, October, 1943.

Pseudocysts of The Pancreas: Report of Three Cases

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THERE are varying definitions for pseudocyst of the pancreas occurring in the literature. Mahorner and Mattson say the term pseudocyst is intended to include extra parenchymal and interparenchymal cysts which are not at any time in their development lined with epithelium. Körte proposed the term pseudocyst for a fluid tumor found in more or less close proximity to the pancreas, but not originating in the substance of the gland. McWhorter states, pancreatic cysts arise from dilatation of the ducts or proliferation of epithelium. Those dependent on trauma or degenerative changes within the gland are called pseudocysts. Opie defines the term—it is a pancreatic cyst having no epithelial covering, containing fluid surrounded by a wall of connective tissue formed within the pancreas or in contact with its surface, the contents being, in part at least, products of pancreatic secretion. The term pseudocyst has been restricted by Willis and Budd to those resulting from trauma. So-called apoplectic cysts which, as the result of injury to the pancreas, hemorrhage occurs and ferments may escape.

Various etiological factors are concerned in the formation of pseudocysts. Hawes states pseudocysts are due to the degenerative changes of the interstitial tissue of the pancreas following fat necrosis. It has been long known that calculi situated in the ampulla of the common bile duct divert the bile into the pancreas and create an actual hemorrhagic pancreatitis. The succeeding trauma to the tissues resulting from release of the enzymes produces a fluid. The isolated fluid within a connective tissue lining becomes the pseudocyst. Trauma plays a large part apparently in the etiology of the pseudocyst. Körte states that 28 per cent of his series of cases of 121 cysts of the pancreas were a result of trauma. It has been suggested that following trauma to the pancreas and the first hemorrhage, enzymes erode the tissue bringing about more extensive hemorrhage and thus growth of the cyst. Softening and subsequent liquefaction of the cyst may result from an infarct or an infected embolism and produce a cyst in a like manner.

Lloyd called attention to the fact that many of the so-called hemorrhagic cysts of the pancreas are really hemorrhages into the lesser omental bursa. Fluid accumulates in the lesser omental sac following trauma or pancreatitis. This effusion seals the foramen of Winslow and

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blood and ferments pass into the bursa omentalis. The fibrous tissue forms a cyst wall as a result of proliferation from the inflammation.

Actually it is almost impossible to distinguish between true and pseudocysts either grossly or microscopically, inasmuch as true cysts sometimes lose their epithelial lining.

Primrose states that while the cyst may arise from any portion of the gland the tail is the most common seat of origin. The connection with the pancreas may involve a wide area of the gland or it may be reduced down to a narrow pedicle. In Oser's 44 cases of cyst of the pancreas 15 were situated in the tail, 11 in the head, four in the middle, and 14 involving the entire pancreas. McWhorter states, a pseudocyst is usually spherical and consists of one large sac. The cyst contents, he continues, consists of either a brownish fluid with several masses of gray material or a milky fluid containing a white mud appearance or a clear yellow fluid. The cyst may present either through the Gastrocolic ligament or through the Gastrohepatic ligament. It has been known to invaginate between the layers of the transverse mesacolon and present behind the transverse colon.

Symptomatology of pseudocysts in Judd, Mattson and Mahorner's series of 47 cases at Mayo Clinic was as follows: Pain, the most important subjective symptom was presented in 43 of 47 cases; 24 of 47 complained of a mass in the abdomen. In E. Starr Judd's series of 41 cases, gallstones were found in 12 and a definite cholecystitis without stones in two others. In addition, in three cases, operation for gallstones had been performed previously so that 17 of 41 cases or 41 per cent—disease of the gall bladder was definite. Nausea and vomiting occur only if the cyst becomes quite large and causes pressure on the stomach. Loss of weight is a common symptom.

A smooth swelling with tense walls is typical of a pseudocyst. The cyst is immobile usually;

however when a cyst arises in the tail of the pancreas it will be mobile. In Judd, Mattson and Mahorner's series mobility was noted in 11 of 47 cases. Of these nine were in the tail. The mass is usually situated between the ensiform and the umbilicus in the midline or in the left upper quadrant. Jaundice is not uncommon in the

the draining fistulous tract. Installation of tincture of iodine, iodoform gauze packing, have been used to hasten the healing. Hamilton has used radium to reduce the period of drainage. Wohlgemuth has advised an anti-diabetic diet which in a certain number of instances has been a factor in closing the fistula which has persisted in



Fig. 1. A large circular filling defect is noted along the greater curvature opposite the incisura which measures approximately 10 centimeters in diameter. The small bowel and transverse colon are displaced inferiorly.



Fig. 2. The first and second portions of the duodenum are displaced superiorly and laterally. This produces an enlarged C-loop.



Fig. 3. The stomach is displaced to the right and superiorly. There is a large circular pressure defect throughout the posterior aspect of the body of the stomach.

larger cysts. The cysts are usually unattached to the abdominal wall.

Pseudocysts may develop at varying intervals from the onset of the first symptoms to the patient's admission to the hospital. In Mattson and Mahorner's series 25 of 47 (53 per cent) gave a history of less than 12 months duration.

Probably one of the best diagnostic aids is the X-ray. An enlarged C-loop indicates enlargement of the head of the pancreas. Also displacement of the stomach or small or large intestine by the tumor often helps in establishment of the diagnosis.

Diagnostic aspiration is contra-indicated inasmuch as the fluids of pseudocysts do not always contain pancreatic enzymes and also other cystic tumors in abdomen occasionally will contain them. An exploratory laparotomy is almost as easy and is much less hazardous. Treatment usually consists of marsupialization, a method by which the cyst wall is first sutured to the parietal peritoneum and the cyst then opened. Small cysts in the tail may be excised but certainly a cyst of any size should be drained as the risk of hemorrhage or diabetes is too great from using total excision.

The period of recovery is shortened by total excision, but the other undesirable features make marsupialization the operation of choice. Various techniques have been employed to reduce

discharging a ferment containing fluid. Doyen dissects out the fistulous tract and implants this into the stomach or small bowel.

CASE REPORTS

Case History No. 1.—E.G., a 50 year old white female, was admitted to the City Hospital surgical service on 4/22/40. A laparotomy was done and an acute pancreatitis was found with definite induration in the body and tail and evidence of tissue necrosis. Postoperative diastase was only 12, however. The gall bladder and common duct were normal.

The patient was readmitted 10/27/40 with a six hour history of severe colic left upper quadrant abdominal pain and left flank pain with several vomiting spells. Blood diastase on 10/27/40 was 91, on 10/26/40 diastase was 88. The entire abdomen was tender on admission but most marked in the left upper quadrant. No masses were palpable. On symptomatic therapy the patient's pain became less severe and the vomiting stopped. On 11/8/40 a mass was noted extending from the costal margin in the left upper quadrant to the umbilicus and from the midline to the anterior axillary line. The mass was quite tender. Fluoroscopic and film studies of the stomach and duodenum made on 11/25/40 showed the stomach to be slightly elongated and to have a "J" shape. A large circular filling defect was noted along the greater curvature opposite the incisura which measured approximately 10 centimeters in diameter. This had the appearance of an extrinsic mass. The small bowel and transverse colon were displaced inferiorly by this mass. See Fig 1.

A laparotomy was done. A large cystic mass

was found to have its origin in the pancreas. The distal three-fourths was involved. A small portion of the head of the pancreas was normal. The presenting portion of the cyst was exposed and this was sutured to the peritoneum. The cyst was opened and about 1500 cc. of straw colored fluid was aspirated. The edges of the cyst wall were brought up and sutured to the skin thus marsupializing the cyst. The evacuated cyst was packed with two inch gauze pack. The patient was discharged in good condition with the sinus nearly healed. She has been admitted twice since with recurrent pancreatitis and died with the last attack.

Case History No. 2.—M.H., a 26 year old negress, was admitted with a two week history of severe epigastric abdominal pain with vomiting. One week before admission the patient noted a mass in the epigastrium. This mass extended from the costal margin to the umbilicus in the right upper quadrant and epigastrium. Blood diastase was 30. Gastrointestinal series showed a displacement superiorly of the first and second portions of the duodenum. This produced an enlarged C-loop. See Fig. 2.

At laparotomy the gastrocolic ligament was found to be necrotic and examination revealed 500 cc. of clotted blood in the lesser omental bursa. This was marsupialized. The patient died on the 27th post-operative day from massive hemorrhage from the wound. This was a case of hemorrhage into the lesser omental sac from a necrotizing pancreatitis.

Case History No. 3.—G.A., a 73 year old white male, was admitted with a mass in the epigastrium of one year's duration. There was some epigastric pain associated. The mass was approximately 10 centimeters in diameter and was situated in the midline. It was smooth and descended with inspiration. Gastrointestinal series showed the stomach to be displaced to the right and superiorly, there being a large circular pressure defect throughout the posterior aspect of the body of the stomach. See Fig. 3. The stomach was displaced anteriorly by the mass. Laparotomy was not done, but aspiration revealed a dark brown fluid which was positive for pancreatic ferments.

In conclusion, while pseudocysts of the pancreas are quite rare—yet, when a patient presents himself with a mass in the epigastrium following a severe bout of epigastric pain or trauma, the possibility of a pseudocyst should always be kept in mind.

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Nutritional Management of the Aged

Dietary training for those over sixty should begin in late adolescence, as soon as full growth is attained.

Thereafter, body build and family inheritances should be understood. By reasonable care, obvious underweight or decisive obesity may be averted. It is well to remember, however, that slide rules giving what are called "ideal weights" are taken far too seriously, and, especially with women, become a great source of faulty eating.

Protein adequacy for rebuilding and keeping up the component cells of all the organs of the body constitutes the first and prime demand. As age advances, those developing "body squeaks" are apt to shift too far to carbohydrate, and all too much of it is over-refined. A daily protein quota from lean meat, eggs, cheese and milk (cottage cheese), or possibly such substitutes as soybean is now stressed by all nutritionists.

This does not mean that carbohydrate is to be despised. Unfortunately the most primitive of tastes is that for sweet. Price has shown how every cloistered primitive people, protected by traditions of food preparation and selection that automatically balance, revert to excess refined starch as soon as they move where it is freely available. Among other things they lose their teeth. Boyd of Iowa University has thrown more light upon this much mooted tooth decay and pyorrhea problem by his intimate study of a group of diabetic children. Rampant tooth decay not only stopped but some cavities filled in when dietary balance was achieved and maintained. In fact, these children did not crave excess sweet when they had adequate protein and secured their needed energy release from the glucose in protein rather than from plain sugar. This is a very far reaching principle. Growing children get hungry. Nervous adults and poor breakfast eaters crave the immediate pick up given by candy or sugar drinks. The stage is set for unfavorable obesity especially where the family and constitutional tendencies thereto obtain. Then we are reminded that irritability both in the young and old is often appeased by eating from which was drawn one of the earliest references to hypoglycemia: "Hungry animals are quarrelsome." Carbohydrate is in nature the most abundant, cheapest and easiest stored of all foods. The over-processing that disposes excessively of minerals and vitamins will be gradually controlled—Edward L. Tuohy, M.D., Duluth; *Minn. Medicine*, Vol. 26, No. 10, October, 1943.

Necropsy Incidence of Carcinoma of The Lung

E. K. JOHNSON, M.D. and HARRY L. REINHART, M.D.

THE increasing incidence of pulmonary carcinoma has interested many investigators, some of whom have reported its various allied and related subjects as etiological agents, greater longevity of the adult population and the clinical and pathological course of this malady. Other investigators have searched necropsy statistics in an effort to compute the incidence of pulmonary carcinoma in their locality. The publications which pertain to the latter subject believe that carcinoma of the lung has increased; some believe it is a relative increase while others think it is a true and absolute increase.

We have reviewed our necropsy statistics to add further information to the literature regarding the incidence of carcinoma of the lung. Our survey covered a 25 year period from January 1, 1917, to January 1, 1942, in which autopsies on 8,333 individuals over 12 months of age were performed. This survey yielded 66 pulmonary carcinomas of which 57 were males and nine were females. Sixty-one of these cases were of the white race and five were negroes. The group ranged in age from 28 to 69 years with an average age of 51 years. This necropsy material was accumulated by the Department of Pathology, Ohio State University, from penal institutes, coroner's and industrial commission's cases and general, mental, tuberculosis and pediatric hospitals. The source of this material was thought to be representative of this locality.

Our necropsy statistics show the number of autopsies, the total number of all carcinomas, the number of pulmonary carcinomas and the number of gastric carcinomas in each of the five-year periods. The periodic comparison between pulmonary carcinomas, all carcinomas and the number of necropsies is a reliable index to the relative or absolute increase of carcinoma of the lung. The number of gastric carcinomas

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the stomach from 1917 to 1935 with a significant increase in colored males and a similar decrease in white females. Our data is shown in the accompanying table.

This data shows a quantitative increase in all carcinomas, pulmonary carcinomas and gastric carcinomas. Nine per cent of all the necropsies revealed carcinoma, while the incidence of pulmonary carcinoma was 0.78 per cent and gastric carcinoma was 1.5 per cent. Of the 786 autopsies showing some type of carcinoma, 8.3 per cent were pulmonary and 16 per cent were gastric in origin. The ratio of their increase indicates a greater frequency of all carcinomas, but no appreciable increase in pulmonary or gastric carcinomas. The percentage of all carcinomas in this series which were either pulmonary or gastric were similar and, although each of them varied, they were essentially the same in comparison. This suggests the increase of pulmonary and gastric carcinomas were proportional to the increase of all carcinomas. Therefore, although we realize this series is too small and the many factors which regulate necropsy statistics are too variable to be conclusive, we believe our data show an increase of pulmonary carcinoma which is more relative than absolute.

There are many excellent articles originating from various geographical points in the United States, regarding the necropsy incidence of carcinoma of the lung. Rosahn,² in 1930, reported an incidence of 0.7 per cent in 3,004 autopsies in the Eastern States. In 1935 Jaffe³ stated that 1.5 per cent of a series of 6,800 necropsies in Chicago showed pulmonary carcinoma, while in Minnesota, Neely⁴ found a necropsy incidence of only 0.55 per cent in 16,916 autopsies. Koletsky,⁵ in 1938 at Cleveland, found 100 primary carcinomas of the lung in 7,685 consecutive necropsies or an incidence of 1.3 per cent. Menne

CARCINOMA NECROPSY STATISTICS

Years	Number of Necropsies	Number of Carcinomas	Pulmonary Carcinomas	Gastric Carcinomas
1917-22	413	28	4	3
1922-27	568	47	3	9
1927-32	1,051	99	9	19
1932-37	2,387	214	13	42
1937-42	3,914	398	37	56
Total	8,333	786	66	129

were tabulated to evaluate the reliability of the statistics as its incidence has been rather constant. Dublin and Lotka¹ in their publication reported a slightly declining trend in cancer of

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and Anderson,⁶ in 1941, published their survey of the Pacific Northwest for pulmonary carcinoma and found an incidence of 1.5 per cent in 33,945 post mortem examinations. At about this same time Halpert reported a necropsy incidence of 1.5 per cent for carcinoma of the lung in 8,862 autopsies at New Orleans,⁷ and 2.6 per cent in 2,781 necropsies at Chicago.⁸ Our finding of about eight primary carcinomas of the lung per 1,000 post mortem examinations was considerably below the average of the United States, which had a range from 0.5 per cent to 2.6 per cent. We believe a reasonable explanation of the variation of the incidence of carcinoma of the lung is the selection, or occurrence, of the necropsy material rather than any regional etiological factors.

The microscopic appearance of the pulmonary carcinomas in our series varied in some specimens, but when the fundamental characteristics were sought, they could be divided into three groups, small cell carcinomas, squamous cell carcinomas and adenocarcinomas.^{9,10,11} Further subdivision of these groups was not considered necessary for this survey. Our series of 66 pulmonary carcinomas were classified as 27 small cell carcinomas, 22 squamous cell carcinomas and 17 adenocarcinomas. Neely,⁴ Koletsky,⁵ Menne and Anderson⁶ and Halpert^{7,8} with some variations and exceptions, reported similar findings in their series.

SUMMARY

A study of the necropsy material for a 25 year period from the Department of Pathology, Ohio State University, revealed a progressive increase in all carcinomas, but no absolute increase in carcinoma of the lung. Our necropsy incidence of pulmonary carcinoma of 0.78 per cent was less than the average, as most publications reported an incidence between 1 and 2 per cent. Forty-one per cent of our series of 66 pulmonary carcinomas were small cell carcinomas, 33 per cent were squamous cell carcinomas and 26 per cent were adenocarcinomas.

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The Obese Child: Discussion of Treatment

From the etiological point of view, cases of this unfortunate condition may be divided into those which are due to individual causes and those due to familial. Of the individual causative factors, I would place fatigue first. Fatigue is a vicious circle in obesity. Activity because of obesity produces ready fatigue and with it indolence, but the circle can be broken by adequate rest. As with adults, so the obese child suffers from lack of rest in bed, the object of treatment being, of course, to relieve his fatigue, give him a sense of well being and a desire for physical activity, because he has rested, and so increase the expenditure of energy. As an example, a 10-year-old boy, who is in the obese group, should have, if possible, 12 hours rest in bed at night, and 2 hours rest in bed in the afternoon, simply with the idea of improving his sense of physical well-being, so that he is more anxious to partake of athletic exercises. Secondly, emotional disturbances in children are unfortunately all too common and are likely, as a source of solace, to result in excessive eating. The insecure, thwarted, frustrated child living in a squabbling household or in an unhappy school situation, is very likely to seek relief and happiness in something which he enjoys, that is, to partake of food and sweets, which he does in excessive amounts. This phase of the subject of obesity in children has been stressed by Dr. Hilde Bruch, working at Johns Hopkins, and while it may be associated with other circumstances, from her point of view, it is unquestionably a common cause of obesity. Finally, the individual etiological factor "gluttony," by which is meant the uncontrolled and insatiable desire for food, similar to the alcoholic's desire for liquor, has been suggested. This occasionally is apparently uncontrolled and may be due to some heretofore unrecognized chemical imbalance or deficiency, the etiology of which is obscure. I mention this here only to plead ignorance of its cause.

There are, however, more important etiological factors in the family surroundings than in the individual. We speak of children or individuals as being of the linear or lateral type and appreciate that the individual with the short square trunk and wide costal angle is more prone to become obese, if less likely to develop gastric ulcer, than is the narrow linear type of individual. This may be true as a family characteristic with certain families who tend to run to obesity. I feel that this is used as an excuse for obesity, rather than being truly a causative factor. Whether heredity, as such, plays an important role, I sincerely doubt.—R. R. Struthers, M.D., Montreal; *Bull. Vancouver M.A.*; Vol. XIX, No. 12, September, 1943.

Importance of Arteriovenous Anastomoses*

Renal Circulation After the Compression of Renal Artery According to the Method of Goldblatt Study of the Influence of the Renal Venous Run-off Upon the Experimental Hypertension

FRANK P. CORRIGAN, M.D. and IGNACY PINES, M.D.

THE present period in the study of essential hypertension was opened by famous experiments of Goldblatt, Lynch, Hanzal and Summerville,¹ who once again brought to the fore the so-called renal theory of hypertensive disease. These observers proved definitely that the moderate compression of one renal artery of a dog leads to temporary hypertension, whereas the compression of both renal arteries is accompanied as a rule by an immediate rise of blood pressure persisting, for practical purposes, indefinitely. Simultaneously, or a little later, other authors have stressed the value of these experiments by showing that in human cases of arterial hypertension the same constriction of renal vessels can be demonstrated in the majority of cases.

However, in spite of this considerable progress made in the study of experimental and clinical hypertension, many parts of the mechanism of appearance of this syndrome are still in doubt. To begin with, even the simple fact of renal ischemia depending on the constriction of the main renal artery by the manoeuvre of Goldblatt¹ or because of the atherosclerotic alterations of the renal arteries in man, is questioned from many sides. Some, like Steiner, Weeks and Barach,² have shown on experimental animals as well as on human beings with arterial hypertension that the degree of the saturation of blood by oxygen has no influence upon the elevated level of blood pressure.

Others, like Corcoran and Page,³ have established that the persistent hypertension depending on renal arterial compression or compression of the renal parenchyma, as in perinephritis, may occur without changes in the renal clearances of diodrast, phenolred, inulin or urea and without alterations of tubular, excretory and reabsorptive capacity and, therefore, probably in the absence of ischemia of excretory renal tissue.

Finally, still others have brought indirect proofs that arterial hypertension does not depend upon the renal ischemia, by demonstrating that repeated attempts to treat experimental or human hypertension by creating an efficient

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collateral circulation are nearly always unsuccessful (Mansfield,⁴ Bruger and Carter,⁵ and De Takats and Scupham⁶). These facts have shaken profoundly our belief in the role played by the diminution of renal blood flow in the intrinsic mechanism of arterial hypertension.

The purpose of this study was, therefore, to check whether and to what degree the ischemia of renal tissue shares in the production of hypertension and, if not, which other factor can be made responsible for the appearance of high blood pressure. This study was carried out in the Institute of Experimental Surgery of Caracas, a legacy of a distinguished Spanish colleague, the late Dr. Manuel Corachan of Barcelona who with the aid of its present director, Dr. Herman de Las Casas, founded this Institute and to whose courtesy we are indebted for the privilege of utilizing its facilities.

METHOD

In order to establish which part the renal ischemia plays in creating arterial hypertension, we considered the effect of venous congestion from the point of view of the blood pressure in experimental animals. As is well known from numerous clinical and experimental studies, as well as from the paper recently published by Linton and his associates,⁷ venous congestion increases considerably arterial flow to the ischemic as well as to the normal tissue. In view of this fact, and the widely accepted theory that renal ischemia is responsible for hypertension, it could be *a priori* taken for granted that passive congestion following venous obstruction should eliminate renal ischemia resulting from constriction of the renal artery and in this way have a beneficial effect upon essential hypertension.

Submitted September 9, 1943.

*English translation; presented in Spanish at the Institute of Experimental Surgery of the Central University of Venezuela, August 26, 1942.

Thus it is well known that partial venous obstruction not only does not influence arterial hypertension in a favorable direction but, on the contrary, can be considered as one of the most reliable means of creating experimental hypertension and in this respect can be put nearly on the same level with constriction of the renal arteries (Weiss)⁸.

The next step was to find out what factor is common to two quite opposite procedures from the point of view of arterial inflow like arterial or venous constriction. This denominator common to two so widely different procedures was, as found by us, only an increase of the venous pressure in relation to the pressure on the arterial side of the kidney. Such a relative and absolute increase of venous pressure is quite obvious in case of constriction of the renal vein. But if the pressure on the arterial side of the kidney becomes diminished through clamping of the renal artery, it is also clear that the venous run-off is diminished and venous pressure increased in relation to the arterial pressure, or "*vis a tergo*", among other things, also because the arterial pulsation assists the movement of blood in certain veins, as shown by Schade and Wohleben⁹. In both cases, therefore i.e., after arterial or venous constriction has been produced, the pressure difference of the trajectory arterioles-capillaries-venules would diminish and probably bring with itself a concomitant stasis in the renal capillaries.

Taking all of these factors into consideration, we desired to examine the possibility of arterial hypertension being dependent upon the relative increase of local venous pressure as compared to the pressure on the arterial side of the kidney. We sought then to increase the venous run-off and to diminish the venous pressure after the Goldblatt¹ manoeuvre had been performed. In order to accomplish this purpose, we elevated the kidneys sufficient to straighten the course of the renal veins. This added the force of gravity to the *vis a tergo* in certain positions of the animal, prevented the collapse of venous walls, and also by establishing a closer contact between the renal vein and artery, increased the effect of arterial pulsation upon the movement of blood in the renal vein.

This procedure was applied only to animals that had developed hypertension, and in the following ways: (a) In the first group, to the kidneys whose renal arteries were previously constricted; (b) in the second group of dogs, to the intact opposite kidney with simultaneous ligation of the renal artery so that both renal arteries were ligated and only one kidney was elevated; and (c) in the third group, to the intact opposite kidney without ligating the ipsilateral artery so that one renal artery was ligated and the opposite kidney elevated in the manner al-

ready described. In all cases, there was a marked fall of blood pressure. These results were particularly striking in the second group (b) in which, following constriction of both arteries, a further increase of blood pressure could be expected.

SURGICAL PROCEDURE

The first step of the operation was relatively simple, consisting of a diagonal incision about eight centimeters long beginning at a point at the juncture of posterior and middle thirds of the last rib and extending downwards and inwards at an angle of about 45 degrees roughly parallel to the fibres of the external oblique muscle. The transverse cutting of muscles was not always avoidable but was minimized as far as possible by using a muscle-splitting technique and dry dissection. The peritoneum in the dog should be handled carefully in order not to open it and thus make more difficult the retro-peritoneal approach to the kidney. The kidney, exposed by separating the peritoneum from the post-parietal wall and overlying structures, was brought into view and lifted from its bed, and in the first instance the renal artery was tied off in such a way as to reduce its calibre to about 60 per cent of normal capacity.

In most instances it was not necessary to deliver the kidney and primary ligation with a linen ligature was made in situ, with little disturbance of the organ from its normal position. The closure was made in the usual orthodox fashion by layers. The mortality and morbidity were relatively low, being markedly higher in the reoperation of animals who had developed blood pressure of over 200 mm. of mercury. The results of the primary ligations were quite uniform and in line with previous experimental and clinical evidence. Elevations in blood pressure of 100 mm. or more were secured in each case of successful partial occlusion of the artery. The whole appearance of the animal changed; the nervous system became more excitable and it was manifestly more animated than before.

This observation of the well-known fact of the elevations of blood pressure by ischemia of the kidney, was demonstrated as a preliminary step only. The next step in the experiment was one in which we were treading on new ground and for which a technique had to be devised. The desideratum was an increased run-off. There were also two steps in this stage of the investigations. In the first series, the animals whose renal arteries had already been subjected to partial occlusion were freshly exposed on the same side. The kidney was dislocated and fixed to the parietal wall with the lower part of the kidney about on a level with the lower edge of the last rib and with an average distance of removal of at least five centimeters from its previous position. Nothing was done to the ligated artery

except to establish the fact that it was functioning normally although with marked reduction of blood volume.

In all of these cases there was rapid restoration of the blood pressure to a much lower level, a result which we attribute to the increased run-off, due to purely physical factors and increasing the massage effect of the adjacent artery and to putting the renal vein on a stretch. The soundness of this position was by no means certain, but in the later series when we operated the animals on the sound side (groups second and third) using the same technique of dislocation of the kidney in such a way as to straighten out the renal vein, it seemed more and more evident that these factors had definitely improved the run-off of the kidney. Eliminating the normal tortuosities of the renal vein and putting it somewhat on a stretch so that the rate of flow of blood in the stretched-out artery was unimpeded, could be compared to the rate of flow in a river meandering through a flat plain with many curves and much friction, and a river coursing through a narrow canyon.

Opportunity was afforded to re-examine the displaced kidney and it was found that the technique used resulted in a very firm attachment. A considerable collateral circulation was established but not in our opinion, sufficient to explain the sustained fall in blood pressure. Also, the effect was produced by displacing the opposite kidney, not the one responsible primarily for hypertension.

DISCUSSION

In our opinion the results of our experiments are confirmed by the clinical experience of McCann and Romansky¹⁰ and of Riskind and Greene¹¹ who have established that the hypertension which accompanies the renal ptosis or renal torsion can be actively eliminated as soon as the incorrect position of the kidney is improved by a surgical operation or by an abdominal belt. The first two mentioned authors even introduce the term of the orthostatic hypertension to designate that in these cases posture has a great influence upon the high level of arterial pressure. The decisive factor, however, in our opinion, consists not in the reduction of the lumen of the renal artery because of the renal ptosis, but in the impeding of the venous outflow in these conditions and in the fact that the restoration of the kidneys to their right place has had its effect upon arterial blood pressure through improvement of the venous return.

Further, it may well be noted that many physicians have known for a long time of the influence exercised by venous pressure upon the level of the arterial blood pressure. There are numerous observations according to which a

sudden bout of circulatory decompensation brings with itself a marked rise of arterial blood pressure which falls again as soon as the circulatory balance is re-established by digitalis and other means. Sahli¹² introduced the term of "Hochdruckstauung", i.e., high blood pressure depending upon stasis in the venous part of circulation, and Gallavardin¹³ speaks of the "Hypertension asystolique" or high blood pressure accompanying heart insufficiency. Of course, not in all cases of congestion do we find elevated arterial blood pressure, but this is doubtless due to the fact that adequate heart action cannot be maintained or that the great rise of venous pressure takes place more particularly in the system of *vena portae*, thus having no influence upon the renal venous run-off.

But all of this leaves a still open question as to what is happening to the excess blood, if the blood flow through the kidney is not diminished during arterial hypertension and there is present a greater or smaller degree of stasis in the capillaries. This problem, it seems can be solved only when we admit that in the arterial hypertension blood passes through the renal arteriovenous shunts opened by the increased venous pressure. The presence of the arteriovenous connection although suspected since 1707, has been finally established definitely in man and in other mammals by Sucquet¹⁴ in 1862 and by Hoyer¹⁵ in 1877.

The recognition of importance of the arteriovenous connections in physiological and pathological conditions is growing rapidly due to the studies of Mason and Popoff,¹⁶ and of Lewis.¹⁷ Recently Spanner¹⁸ has found them in a relatively considerable quantity in renal tissue. Wright and Duryee¹⁹ have shown that although there is some interchange of the matters through the walls of the arteriovenous anastomoses, the tissue metabolism depends on the circulation of the blood in the capillaries. It is not surprising, therefore, that when the capillary stasis develops as the result of the constriction of the renal artery or vein, the blood passes directly through the arteriovenous shunts, thus leading to the ischemia of the tissue responsible for the production of the hypertensive factor or to deficient oxidation of some very important products of tissue metabolism.

To conclude, we are inclined to believe, on the basis of our experiments, reasonings and clinical experience, that hypertension depends upon the disturbance of the balance between the pressure on the arterial and on the venous side of the kidney. When this balance is disturbed in favor of the venous pressure, stasis probably takes place in the renal capillaries and primary renal circulation is short-circuited through arteriovenous shunts. Consequently, the tissue responsible for hypertension begins to suffer from

inadequate supply of blood and production of a hypertensive substance is begun. On the other hand, we believe that when the balance between the pressure in the arterial and venous side of the kidney is restored, the production of hypertensive substance will cease perhaps through reestablishment of an efficient oxygenation.

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Psychosomatic Aspects of Hypertension

The psychosomatic aspect embodies the study of the entire individual. "The concept of psychosomatic medicine is that man and his environment form an inter-acting unit and that mind and body are aspects and not parts." From this point of view in considering the causes of hypertension one has to envision, therefore, causes arising both in heredity and in environment. Heredity is responsible for inability to make proper adjustments found in the environment. Therefore, the individual reacts adversely due to a combination of these two factors. This adverse reaction results in tension for which there is no adequate release, which, in turn, causes certain somatic disturbances resulting in hypertension.

From the psychosomatic standpoint the treatment of hypertension stresses the treatment of the individual rather than the treatment of the blood pressure. Physical causes such as kidney disease, arterial disease, or glandular disorders

should, of course, be dealt with properly. In the so-called essential hypertension, however, which presumes no physical cause, the treatment must embody a study of the individual with analysis of his conflicts and his emotional disorders. Attention of the patient is directed away from the height of his blood pressure. He is given an opportunity to release, through his medical advisor, the conflicting forms of tension which exist in him due to his improper reactions to his environment and his fundamental maladjustments. He is given reassurance and is advised to turn his attention away from his blood pressure and to lead a normal life in so far as is possible. The psychosomatic concept believes that the various surgical procedures devised for treatment of hypertension cannot be expected to lower the blood pressure by a pure physiologic means such as relieving constriction of the smaller blood vessels or by decreasing the secretion of adrenalin. Psychosomatic medicine believes that psychotherapy is the most important part in the treatment of hypertension and that its wide use is to be encouraged. It believes in medical management, but that the wide use of operation is not to be encouraged.—William H. Hengstler, M.D., St. Paul; *Minn. Medicine*, Vol. 26, No. 10, October, 1943.

Thymic Tumor in Myasthenia Gravis

During the last thirty years, various therapeutic measures have been used to influence the course of myasthenia gravis. Keschner and Strauss report that more remissions occur in myasthenia gravis following roentgen therapy of the thymus than take place spontaneously. Favorable results following the surgical removal of tumors of the thymus associated with myasthenia gravis have been reported by Blalock, Mason, Morgan and Riven. In 1941 Blalock, Harvey, Ford, and Lilienthal reported encouraging results following extensive mediastinal exploration with removal of thymic tissue on six cases of myasthenia gravis without roentgenologic evidence of thymic enlargement.

Roentgenologic examination of the chest, including lateral views, is recommended in all cases of myasthenia gravis. However, a negative roentgenographic report does not necessarily rule out the presence of thymic enlargement. Perhaps where hypertrophy of the thymus is detected, roentgen therapy possibly followed by surgery (thymectomy) during a remission period would be the procedure of choice. Meanwhile, the symptomatic treatment of myasthenia gravis with prostigmine as outlined by Viets should be strictly adhered to.—Elmer Haynes, M.D., Madison; *Wisc. Med. Jour.*, Vol. 42, No. 9, September, 1943.

X-Ray Therapy of Benign Uterine Bleeding and Fibromyoma

SAUL J. TAMARKIN, M.D.

RADIATION in the form of X-rays has been utilized in the treatment of uterine bleeding since shortly after its discovery by Roentgen in 1895. Radium was employed shortly after its discovery by the Curies in 1898. The first published reports are recorded in 1906. Today most radiologists and gynecologists are familiar with it.

Our series consists of 126 cases treated with X-ray in St. Elizabeth's Hospital from 1932 to 1942. While this series is small, it gives a fairly good cross section of the type of case referred to the average radiological laboratory. Our results almost duplicate those obtained in the larger clinics. Of the larger groups W. E. Costolow³ reports 1009 cases; E. C. Ernst⁸ 500 fibroids; J. A. Corscaden⁴ 733 cases; B. M. Willmott² 411 cases; J. L. Baer⁷ 1001 cases; Rongy¹⁵ 350 cases, using radium only; and B. Windemey¹ in England commenting on 7000 cases compiled by Phillips from 20 radiologists. There are no doubt numerous other large series that have been published but that we have not had an opportunity to review, and likewise other large groups that have not been reported.

While surgery has been the time honored method of election in the treatment of uterine fibroids and bleeding, the value of X-ray and radium therapy in these conditions is gradually becoming recognized by the profession. However I feel as J. T. Murphy¹⁹ does that it seems logical to assume that neither surgery nor X-ray is the ultimate treatment in these conditions since it is very likely that menorrhagia, metrorrhagia and fibroids are due to endocrine imbalance, and in the end should logically be medically controlled. Much progress has already been made in this field.

ACTION OF X-RAYS

The precise action of X-rays is not definitely understood but radiotherapists agree that the action is primarily on the ovaries and secondarily on the fibroid tumor and endometrium. Regaud and Lacassagne have found that the mature follicles of the ovaries are the most sensitive to X-ray. In a woman at or nearing the menopause the follicles remaining in the ovaries are either mature or very close to it and therefore radio-sensitive. Conversely the younger the indi-

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vidual the larger the number of immature follicles present and the larger the dosage of X-ray necessary for sterilization. Theoretically, any woman can be sterilized if the dosage is large enough. The corpus luteum and interstitial cells are the last to be influenced. X-rays also produce an obliterative endarteritis. This causes a shrinkage of the tumor due to lessened blood supply. There is also some direct action on the tumor cells, they being replaced by young connective tissue cells.

If radium is inserted into the uterus, it acts both directly on the endometrium and also on the ovaries. To produce sterilization, it is necessary that the ovaries receive sufficient dosage. This usually requires 400 to 600 "r" units. If the fibroid tumor is large, the ovaries would therefore be at a considerable distance from the source of radium and a very large intrauterine dosage would be required to produce sterilization. This large dosage is one of the contraindications for the use of radium in treatment of fibroids.

INDICATIONS AND CONTRAINDICATIONS FOR X-RAY THERAPY

The selection of cases for radiation therapy is governed by certain definite indications. Not all cases are treated. Corscaden's large series represents only 30 per cent of all cases of fibromyoma and bleeding that enter the clinic. Every patient should have a careful bimanual pelvic examination together with direct inspection of the cervix by a competent gynecologist who is familiar with the indications and contraindications of radiation therapy. A curettage and examination of the scrapings for malignancy and for ruling out pedunculated submucous fibroids is also necessary in all cases. Among the definite contraindications to X-ray therapy are adnexal tumors, cysts, associated acute inflammations such as appendicitis and salpingitis, degenerating fibroids as manifested by softening, pedunculated submucous

Submitted August 12, 1943.

Presented before the staff of St. Elizabeth Hospital, June 8, 1943.

and subserous fibroids, calcification in fibroids, and malignancy of both the cervix and body.

All submucous fibroids were formerly considered contraindications to radiation therapy, but Corscaden reports that 25 per cent of his large series had submucous tumors as discovered by curettage. These were treated and responded very well. Two of his cases that failed to stop bleeding, proved to have pedunculated growths that were not discovered by curettage. Both of these patients later expelled the tumor without surgical intervention.

Formerly all pelvic inflammatory disease was considered an absolute contraindication. However this has not been borne out by fact. Desjardins at the Mayo Clinic and others report a number of cases of pelvic inflammatory disease treated with X-ray with good results. X-ray therapy is definitely indicated in other inflammatory conditions and this holds true in pelvic inflammations. Baer⁷ reports that 20 per cent of all fibroids have associated pelvic infection. We have treated several cases with frozen pelvis due to old inflammatory disease, and our results have been uniformly good. In no case was an acute inflammatory reaction precipitated. Two of our series were patients on whom a laparotomy was performed, but the hysterectomy abandoned because of the condition of the pelvis. Radium therapy, however has been known to cause a lighting up of an old pelvic inflammation. This is probably due to its caustic local action. X-rays, however, are very gradual in their action and the overall dosage is relatively small and distributed over a wide field.

Calcified tumors will not respond. They can be discovered by a film of the pelvis. These require surgery.

Most unusually large tumors with pressure symptoms are also surgical. Corscaden takes the size of a six months pregnancy as the upper limit for routine X-ray therapy. However, he treated 18 cases larger than a six months pregnancy that were deemed inoperable. The bleeding was controlled in all but one and there was at least 40 per cent reduction in the size of the tumors. A number of cases of unusually large tumors have been reported that received X-ray therapy, and then the tumor shrunk down enough so that what was originally an inoperable case or a poor surgical risk became operable. Large irregular pedunculated fast growing fibroids also do better with surgery. These can also be reduced in size before operation if desired. Surgery is also recommended in all patients over 55.

A few surgeons in condemning X-ray therapy have spoken of the danger of sarcomatous degeneration. This is not borne out by fact. There are very few cases reported in routine autopsies on old women. The incidence is probably under 0.5 per cent. The Mayos reported only 0.39 per cent true sarcoma out of four thousand cases of fibro-

myoma. Ewing states that the lesion is rare and the diagnosis is very difficult. The usual surgical mortality after hysterectomy varies from 1 to 5 per cent. An operation performed just to obviate the possibility of sarcomatous degeneration is therefore not justifiable. As to future occurrence of cancer of the fundus and cervix, Corscaden quotes Phaler who in reporting the German literature states that malignancy occurred in only 0.35 per cent of 3890 treated cases while it occurs in about 5 per cent of women in the cancer age. He concludes that X-ray therapy is even protective. Many of my patients were told by their well-meaning friends that cancer will develop after X-ray therapy. This is manifestly untrue.

If there is any doubt as to diagnosis after the usual pelvic examination and curettage, surgery is indicated to permit exploration.

EFFECTS OF TREATMENT AND RESULTS

We have had no fatalities and most large series reviewed also report none.

Menopausal symptoms are usually very mild; 15 per cent have no symptoms whatsoever. Many patients state that they have never felt better in their lives and some even report improvement in general well being after the first treatment; 85 per cent have hot flushes. These can be controlled by estrogenic medication if annoying. Chronic backaches are often relieved. Five cases had rather severe radiation sickness. These were all of the very nervous type of individual, usually underweight. They were controlled by large doses of thiamin, liver extract and intravenous glucose. Three patients were hospitalized. However, most of our cases state that they did not even know that they were getting the treatments. The menopause is usually lighter than the natural one. We have even had several cases with severe menopausal symptoms but no tumor or bleeding, referred to us for X-ray therapy. It has relieved them considerably.

Most of the patients get a mild erythema or bronzing of the skin and lose their pubic hair temporarily.

Three patients complained of diarrhea and two of dysuria. These annoying symptoms ceased shortly after the course of therapy was completed.

A number of patients in the younger group were asked about sex changes. Most of them reported no change in libido. Some had considerably more gratification from intercourse because there was no fear of pregnancy. Sexual relations are permitted during the course of therapy. Contraceptive measures are unnecessary.

Patients are usually ambulatory. The treatments are painless and practically all have continued their routine work throughout the course.

Many were teachers, nurses and office workers. The total expense to the patient is also a fraction of the amount that would be incurred with a major surgical procedure.

Eighty-eight per cent had one period after the series. This was usually more severe than usual. Three cases had two periods. Bleeding recurred in two patients after an interval of four months. These were given a second course of therapy with subsequent permanent amenorrhea. Two cases were operated upon shortly after the first period following treatment. They became frightened and consulted surgeons who "did not believe in X-ray therapy."

One patient continued to "spot" for three months after radiation. A second curettage disclosed a malignancy of the fundus. She was operated upon and has remained well for three years. While the relatively small dose of X-ray routinely given will cause sterilization and cessation of bleeding due to ovarian action, it is usually not enough radiation to stop bleeding from any malignancy that might occur. The patient is therefore not robbed of this valuable warning symptom. It should be stressed that all patients be checked periodically and instructed to report any bleeding or discharge after the course of treatment is completed.

All of our cases are sent back to the referring physician. He treats them for menopausal symptoms if indicated. Two recurrences of bleeding after six months were found to be due to too vigorous hormonal therapy. Bleeding ceased after the hormone was discontinued.

Two cases over 60 with huge tumors did not respond. Only one series was given in each case. They were poor surgical risks with pressure symptoms. We do not advise X-ray therapy in patients over 55.

Twenty-seven patients were under 40. This large number in the younger group were chiefly cases that were either bad cardiacs, diabetics, nephritics or tuberculous who had severe menorrhagia, metrorrhagia, fibroids or severe dysmenorrhea. These were all either poor surgical risks or patients who had some form of incomplete pelvic surgery previously without relief. These operated cases are frequently a "headache" to the surgeon and X-ray therapy is almost specific. We have had several grateful surgeons thank us for our results in these cases. For medico-legal purposes, it is our practice in treating women in the child-bearing age to have them sign a witnessed statement to the effect that they are aware that X-ray treatment might produce a temporary or permanent amenorrhea and that they will be forever incapable of bearing children. While a number of patients have been reported who have given birth to normal children after having received X-ray or radium therapy to fibroids and then became pregnant after the uterus returned to

normal size, we usually recommend emptying the uterus because of the theoretic danger of giving birth to an abnormal child.

At the age when usually treated an ovary contains all of the primordial follicles as it is conceivable that the younger cells might also be damaged, even though slightly. While this has not been borne out in fact, animal experimentation tends to show that deformities frequently occur in the second and third generations. Manifestly, not enough of these children are old enough to check this reliably. It will probably take another 25 years. Myomectomy is certainly preferable, when feasible, in these younger individuals where pregnancy is desired.

The action of the X-ray is slow. All of our smaller fibroids involuted completely in six to twelve months. The larger ones show a 40 per cent to complete involution. However, they were all relieved of their metrorrhagia.

Twelve of our patients were referred to us because they were considered poor surgical risks due to marked obesity. They all weighed over 200 pounds. Several cases were inoperable because of marked anemia.

We do not recommend X-ray or radium in puberal bleeding. It should be used only as a last resort after the usual endocrine therapy. X-ray therapy over the spleen and pituitary should be tried as first recommended by Kaplan,⁷⁴ King¹¹ and others. If these measures fail one should employ not more than 250 to 300 mg. hrs. of filtered radium in the uterus.

We do not recommend temporary castration in young women for reasons mentioned heretofore. We have attempted temporary sterilization with small dosage of X-ray in three cases. A number of therapists have worked out tables specifying the exact number or "r" units that will produce amenorrhea for varying periods. This has not held up because of the wide variance of individuals in response to radiation. Some cases with a small amount of radiation may stop menstruating for three months while others with the same dose may stop for three years. The indications for temporary sterilization have been severe dysmenorrhea or menorrhagia that has not responded to endocrine therapy or repeated curettage. For reasons stated previously all of these patients were required to sign the usual form.

TECHNIQUE

Many years ago only one or two massive doses were given to the pelvis, but this form of therapy has been largely abandoned. We give from eight to fourteen treatments, one treatment daily, alternating one large anterior and one posterior field. The series is begun, whenever possible, immediately after a menstrual period or a few days after curettage. However, the treatments can be started

while the patient is bleeding. She must be warned in every case that she will probably have one more period and that it might be more severe than usual. Our factors are 180 KV with Thorius filters at 50 cm. The more obese the patient the larger the external dosage necessary. We try to get 500 to 600 "r" units into the ovaries.

RADIUM THERAPY

Although our personal experience is limited to four cases a review of the literature shows that a very large number of cases are treated with radium. The capsule is easy to insert in the uterus at the time of the curettage. Results are good and compare favorably with those of X-ray therapy. It is especially useful in fibrosis uteri. There is, however, a small but definite mortality, chronic infections are occasionally exacerbated, immediate reactions are often severe and there is some danger of stenosis of the cervix. Many gynecologists have their own radium or have access to it and this explains why it is more frequently utilized than X-ray therapy. We feel that X-ray gives superior results in the majority of cases. However, we do believe that either radium or X-ray can be used in most cases.

Not all fibroids should be treated either surgically or with radiation as many of the smaller ones will reduce in size and even disappear completely during the normal menopause. One should be guided by symptoms, rate of growth, etc.

Windemeyer reports that at the joint meeting of the Section of Obstetrics and Gynecology and Section of Radiology of the Royal Society of Medicine in England held in both 1933 and 1938, it was agreed that radiotherapy is undoubtedly the treatment of choice in uncomplicated menopausal menorrhagia.

Too many surgeons and clinicians upon discerning a fibroid on routine pelvic examination advise surgery. They are unaware of the advisability of radiation therapy in a selected group or that some will involute spontaneously.

CONCLUSIONS

X-ray therapy is a safe and sane method for the control of menopausal bleeding and reduction of the size of fibroids in a carefully selected group of patients.

There is no mortality to the procedure.

A careful history, pelvic examination and diagnostic curettage should be done in all cases. The gynecologist and radiologist should collaborate in this examination.

Pelvic inflammation and tumors of large size are not contraindications; likewise, submucous fibroids unless pedunculated.

The patient should be forty years or older. If a young woman it treated, a temporary castration should not be done.

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Postpartum Pulmonary Embolism; The Problem of Femoral Vein Ligation as a Prophylactic Measure*

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Case History. N. F., a 19 year old colored female, was admitted to the medical service of Cleveland City Hospital 11 days following the delivery of a three pound premature infant. The postpartum course had been uneventful until the eighth day when pain occurred in the chest on the right side. On the day following, the patient experienced pain in the left side of the chest as well as the right, and expectorated blood-streaked sputum. On the tenth postpartum day the pain was more severe, there was more hemoptysis, and on admission to the hospital the patient also complained of moderate shortness of breath.

The temperature on admission was 39° C., the pulse was 100 per minute and the blood pressure 115/80. Positive physical findings were a slight limitation of motion of the left costal margin with diminution of breath sounds over the lower left hemithorax, questionable tenderness on the medial aspects of both thighs and minimal pitting edema of the right leg. Upon this evidence a clinical diagnosis of pulmonary infarction, bilateral, was made. This impression was corroborated by the roentgenograms which showed a shadow at the base of the right lung, interpreted as either infarction or pneumonia. The blood count on admission showed 3,800,000 erythrocytes per cu. mm. and 11,500 leucocytes per cu. mm., of which 90 per cent were polymorphonuclear neutrophils. The clotting time was six minutes.

The patient was given heparin and dicoumarin, after which the clotting time rose and was maintained at 11 to 12 minutes. Upon surgical consultation, a diagnosis of thrombosis of the superficial femoral vein on the left, and probably on the right, was returned, with a recommendation for bilateral ligation. On the fifth hospital day the common, deep and superficial femoral veins of both extremities were explored. No thrombosis was found and it was thought that the operative field was well above the site of phlebothrombosis. Both superficial femoral veins were ligated just below the formation of the common femoral and a portion of each vein was excised. The post-operative course was complicated by pain in both calves and moderate pain in the region of the right costovertebral angle. The temperature varied between 37 and 38.5° C. daily for the first six days and after that it rose to 39.5° at daily intervals. A course of sulfathiazole was given. The patient had no dicoumarin or heparin post-operatively. On the 13th postoperative day the patient suddenly started to gasp for breath and became comatose. She had three convulsive seizures; death occurred within a few minutes.

Autopsy. This was performed six hours after death. The significant observations were limited to the lungs and veins of the lower extremities. The pelvic veins were not remarkable. There were three small recent infarcts in the base of each lung with overlying fibrinous pleuritis. Oc-

cluded arteries were found in the parenchyma to account for most of these. The main pulmonary artery was completely occluded by a coiled mass of blood. The average diameter of the mass was about 1 cm. The length was not measured due to preliminary fixation in situ, but was estimated as between 8 and 12 cm. It was firm and friable, had a gray wrinkled surface, and on cross section was light and dark red mottled with gray. The right pulmonary artery and its larger branches were also completely occluded by this mass but only the proximal 0.5 cm. of the left pulmonary artery was obstructed. Both deep femoral veins were occluded by adherent firm thrombi; the one on the right extended only to the origin of the common femoral vein but the one on the left extended to the level of the inguinal ligament and was not attached to the wall of the vein. The ligated ends of the superficial femoral veins were distended with recently formed thrombi. The internal saphenous veins were normally patent. Microscopic examination of the veins showed thrombosis with moderate chronic phlebitis in the deep femoral veins and their tributaries, and thrombosis without phlebitis in the superficial femoral vein stumps and the left common femoral vein.

The major pathological diagnosis were: Organizing thrombophlebitis of the femoral veins and tributaries; recent massive pulmonary embolism; recent small infarcts of lungs with overlying acute fibrinous pleuritis.

COMMENT

The most common sites of thrombophlebitis following abdominal surgical operation or parturition are the veins of the lower extremities. Pulmonary embolism is common from this source. Recent studies¹ show that 10 to 20 per cent of those individuals who have emboli to the lungs from thromboses in the leg die of pulmonary embolism, and that 5 per cent of those individuals with diagnosed femoral thrombosis die of pulmonary embolism.

It has been stated that 67 per cent of venous thromboses of the lower extremities arise in the vessels of the calf¹. From here propagation occurs to the popliteal system and advances proximally to the superficial femoral and iliac veins as a phlebothrombosis or thrombophlebitis, the potential source of a large embolus. Therefore, the recommended surgical practice in the prevention of embolism, once a diagnosis of phlebothrombosis has been made, is the ligation of the superficial femoral vein. Ligation of the deep femoral vein, or the common femoral into which it flows, is not usually done because the deep femoral vein drains the adductor portions of the thigh and has no large communications with the

*Selected by H. T. Karsner, M.D. from the Clinical-Pathological Conferences at Cleveland City Hospital as the eighteenth of a series of cases to be published under the heading "Case Records Presenting Clinical Problems."

veins of the calf. Further, the diagnosis of deep femoral thrombophlebitis is difficult to make; the clinical signs are confusing and venograms of the deep femoral circulation are as yet not common practice.

This case emphasizes the fact that thrombosis of the deep femoral vein does occur following parturition and is a potential source of fatal pulmonary embolism. Ligation of the superficial femoral vein is therefore not an adequate prophylactic measure in all cases. This case suggests that the deep femoral system also should be isolated. Therefore, ligation of the common femoral vein distal to the saphenous, granting the latter is patent, should be tried more frequently. This offers greater protection to the patient and, according to Fine and Sears and recent experience in Cleveland City Hospital, does not increase the disability of the patient.

1. Quoted by Fine, J., and Sears, J. B.: The Prophylaxis of Pulmonary Embolism by Division of Femoral Vein, *Ann. Surg.* 114:801, 1941.

Observations on Bacterial Allergy In Scarlet Fever

Due to the small number of cases studied, no definite conclusions can be drawn. However, the responses described above indicate that the hemolytic streptococcus may have been implicated in the appearance of urticaria. It appears that an incubation period occurred and in this respect resembles the allergic response seen in patients who have received horse serum or other known sensitizing materials. However, at no time has high fever been noted, which commonly accompanies the manifestations of serum sickness. There was an incubation period comparable to that seen in horse serum sensitivity in only one case (the third). The other patients developed their urticaria rather late in the course of the disease. It is a matter for speculation if the first patient had been sensitized to the hemolytic streptococci and their products during his former attacks, which may explain the increasingly severe reactions seen on his second and third attacks of scarlet fever. It should be noted that these patients had uncomplicated scarlet fever.

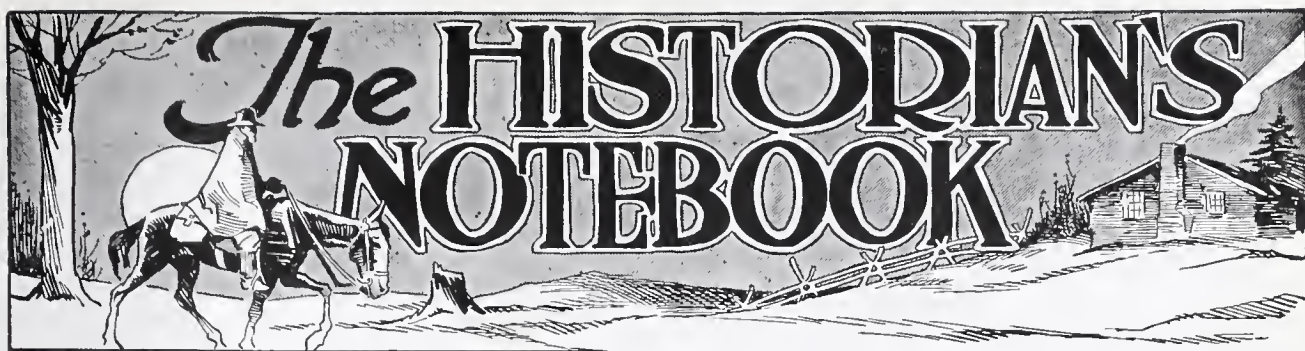
It appears that the skin reactions observed are separate and distinct from that produced by the Dick toxin and might have resulted from hypersensitivity to the whole hemolytic streptococcus or some of its antigenic components rather than to its toxic filtrates. The urticaria appeared when the patients were convalescing and gave negative skin reactions to the Dick and homologous toxins. Goodall and Washbourn described an uncommon secondary rash which occurs most frequently during the second and third week of scarlet fever and which is distinct from the punctuate erythema present at

the onset of the disease. They do not attempt to explain the cause but call attention to the close resemblance of this rash to the urticarial eruption following the injection of therapeutic sera. Our observations appear analogous to those of Derick and Swift who observed a secondary skin reaction as the primary site of inoculation in rabbits inoculated with non-hemolytic streptococci by the intracutaneous route about 10 days previously. The primary reaction had receded at the time of the secondary reaction. Coincident with the appearance of this secondary reaction, the rabbits were hypersensitive to the inoculated streptococci and exhibited cutaneous, corneal, and toxic reactions similar to those produced by tuberculin. These workers believe that a sufficient amount of residual antigen remains at the site of inoculation to react by recurrence of acute inflammation when the animal has developed hypersensitiveness as the result of inoculation with the bacteria. Neill and Fleming have described an "immediate" skin reaction to the derivatives of the diphtheria bacillus distinct from the "delayed" or "pseudoreaction" usually seen in adults. Unlike our cases, the skin reaction was invoked, not only by washed killed bacterial suspensions, but also by filtrates of broth cultures.

Many investigations have demonstrated repeatedly that man and other animals can be sensitized to killed bacteria and their products. The tuberculin test is a well known example of this type of bacterial allergy. The typhoid reaction of Gay and Force, which is positive in individuals immunized with typhoid vaccine or recovered from an attack of typhoid fever, was one of the earliest to be published. Specific allergic skin reactions are of diagnostic value in bacterial infections such as glanders (mallein) and infectious abortion of cattle (abortin) and in parasitic disease, such as trichiniasis, hydatid disease, and metazoan infections.—James A. Connor, M.D., and Albert Milzer, Ph.D., Chicago; *Ill. Med. Jour.*, Vol. 84, No. 3, September, 1943.

Examinations for Tuberculosis

In discussing the examination of children for tuberculosis, let it be stressed once again that any plan that embraces the young folks and neglects preemployment and periodic testing and chest X-haying of teachers, janitors, food handlers and other adult personnel is incomplete, unsound educationally, dangerous and destined to overlook probably the most potential as well as the most potent sources of tuberculosis within the institution. Additionally, a program that examines the positive reactor without tracking back to the source of his infection is equally unfinished and open to criticism.—Charles E. Lyght, M.D., N.T.A. Bulletin, May 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A Localized Outbreak of Asiatic Cholera in 1834

STEPHEN R. WILLIAMS, Ph.D.

AS you all know, cholera is endemic in the warm parts of Asia and from there epidemics have spread over the rest of the world. In 1817 it reached much of the balance of Asia, and the continents of Africa and Europe while the one starting in 1826 reached North America in 1832. It was brought from Dublin, Ireland, on the ship Carricks in June and was taken on to Montreal by emigrants from the Carricks on the steamboat Voyage. From here it made its way along the inland waterways to the Mississippi system and by the end of 1832 was a serious problem in New Orleans. Returning up the Mississippi in 1833, it devastated Louisville, Cincinnati, and Lexington, Kentucky, and many cases appeared in the towns of the Great Miami Valley. Though sporadic deaths of travelers occurred outside the towns the scattered population in Butler county remained uninfected.

This, however, was not true in 1834. In the southwestern part of the county the highland in the northwestern part of Ross township and the eastern section of Morgan was stricken most severely.

I follow the account of William Bebb, later a governor of Ohio, as published in the Hamilton Intelligencer of July 31 and August 7, 1834.

The first case that occurred in the region infected was that of Reuben Woodruff, who had made a trip to Cincinnati, 25 miles away, where, according to the same issue of the Intelligencer, cholera deaths were occurring at the rate of about ten a week. He recovered due to skillful treatment by his wife, who maintained the surface temperature of his body by packing around him bags of shelled corn, heated as hot as it could be endured.

The first death was that of his seven year old son who had been with him on his Cincinnati visit. The next was Mrs Bell, (60), a neighbor and then

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her husband of the same age. During the sickness at the Woodruff home, Mr. Conley, 45, of Paddy's Run, called there and after his return home took the sickness and died.

This was the first case in the Paddy's Run Valley proper. Mrs. Maurice Jones, (60), sat up all night at the Conley's the night before his death, was taken the next morning herself and died before night. Her husband, Maurice Jones, (60), was attacked the next evening and died before morning.

Two of Mr. Conley's daughters, (15 and 18 years old), Ephraim Van Vickie, (22), Ann Venable, (18), who were at his wake, Mr. Slingsby who made his coffin (and Mrs. Slingsby on authority of Chidlaw diary) Abel Appleton, (65), and Martin Bissiers, (40), who were in attendance during his illness all died, Mr. Van Vickie was attacked at Mr. Hidlay's, and out of that family—old Mr. Hidlay, (65), old Mrs. Hidlay, (65), young Mrs. Hidlay, (35), and one not named, five in all, died. Squire Carmack's family, which lost four, had intercourse with their neighbors, Mr. Hidlay and Mr. Venable. From Mr. Hidlay's the disease got into the family of Mr. Ent who lost beside his daughter, young Mrs. Hidlay, two other daughters, Mrs. Robeson, (40), and Miss Ent, (18).

Dr. Kingsley (40), the Millville doctor, who was one of the early victims, I am told had visited some patients in the neighborhood where Mr. and Mrs. Bell died.

Whether Dr. Bottenberg, (28), had been exposed to the disease, I am not informed, but I

presume from his profession that is highly probable.

Old Mr. French, (70), lived a neighbor to Mr. Bell and Mr. Ent. He and Foster Bails, (30), who lived in the same house died the same day. The son, Jeremiah French, (30), and the daughter of Mr. French, Sr., were attacked the next day. The son died, the daughter recovered. During Jeremiah French's illness, his father-in-law, who lived in Hamilton County, five miles south of the infected region, visited him, was present at his death and burial, returned to his home in good health and the next day was attacked by cholera and died in a few hours. His daughter who had accompanied him to the funeral of Mr. French also took the disease but survived. Continued in the August seventh *Intelligencer*.

Further deaths—Mrs. Abbott, (35), a daughter of the Bells, Mrs. Hindman, (40), and Miss Hindman, (13), Mrs. Robeson's child (age, sex unreported), Lydia Barns, (19), a neighbor to the Doyle's, Mr. Doyle (whose death was among the early ones), and Mr. Day, (23), stepson of Mr. Doyle. From Crosby Township, Hamilton County—Deacon James C. Scott, (60), of the Paddy's Run Church.

There seems to have been no more deaths in this locality after the August seventh issue of the *Intelligencer* but by August 10, the disease appeared in Oxford 12 miles north. The first death was in the family of Mr. E. Moore, his niece, Rebecca Scott, (18). Mr. Moore's son died the next day after an attack of eight hours only, then Mr. Moore and Julia Dean, the hired girl, very shortly thereafter.

On August 12, the students of Miami petitioned for the privilege of a dispersal (vacation) of not to exceed four weeks to avoid the cholera then raging in Oxford. It was granted.

The Hamilton *Intelligencer* of September 4, reported as dead of the Cholera in Oxford in addition to the four previously mentioned; Mrs. Duckett, William Adams, Mrs. William Adams and infant, Whitfield Washburn, Samuel Cory, the son of Dr. Cory, Mary Dowd, John T. Gause, Henery T. Barrows. Besides the departure of the Miami student body, the editor says that half the inhabitants of the village left town. After the cholera scare was over and within their four week limit, the Miami boys must have returned for on September 23, there was an Erodolphian Literary Society anniversary in the afternoon and a Union Society meeting in the afternoon and a Union Society meeting the evening with Dr. Daniel Drake of Cincinnati, as the orator. The next day, September 24, was the Commencement for the Class of 1834, when 22 were graduated, including at least three men nationally known later, Hon. W. S. Groesbeck, Rev. J. G. Monfort and Rev. T. E. Thomas.

I have no means of tying up the Oxford infection with the one in Morgan and Ross townships. There had been cholera in Hamilton in 1834, as well as in the summer of 1833. In these accounts I have omitted all the discussion concerning cause since the prevailing medical opinion had to do with the soil, the wind, the atmospheric changes and other similar non-essentials. Among seven different theories discussed by Daniel Drake the "animalcular" was introduced last and with seeming timidity. Most doctors also insisted that the disease was not contagious because you might be in the presence of a sufferer and still not take the disease. The first demonstration that cholera was actually water borne was 20 years later in the case of the Broad Street well in London. Even that preceded the formulation of the microbic theory of disease.

Cholera is caused by a spirillum which is transferred by contact, by flies, by uncooked food washed in infected water. Not every one takes cholera at a given time. It is more severe in those suffering from other intestinal troubles and in July 1834, in very hot weather with no refrigeration, many might have had predisposing digestive upsets.

There are no symptoms as long as the cholera germs remain in the intestine, since they produce no soluble toxins. But as the spirillum enters the epithelial cells of the intestines, these break down and then the toxins appear. The body flushes the intestinal tract, there is vomiting and the presence of "rice water" stools, the blood pressure drops, the urine ceases and the fingers shrivel. There is marked acidosis, muscular cramping and the individual dies from excessive dehydration of the body. One of the early treatments for cholera at present in the East is to inject serum or saline solution to prolong life so that medicine may have time to take effect.

One of the unconsidered protections against cholera in those days must have been the very common "chills, shakes or fever and ague". When Koch discovered the cholera organism 50 years later, he also found that a solution of 1/2500 quinine sulphate would kill the cholera germ in 10 to 30 minutes.

A modern cholera epidemic in Van, Turkey-in-Asia, was controlled in 1906 by quinine. More than 90 per cent of the patients, including those brought to the hospital moribund, recovered whereas with other treatment every patient during the first week succumbed.

When I was in the Paddy's Run Valley I had malaria. I was awakened at four o'clock a.m. on the "chill" day and given quinine wrapped in a wafer and every hour thereafter until nine o'clock when the dose was given every half hour until the onset of the fever. I do not know the size of the dose I was given, but many of the settlers,

having acclimated their malarial parasites to mild quinine treatment had to take enormous doses which would parallel the 10 grains per hour which cured the Van patients in from four to eight hours. I assume that such malarial patients would not take the cholera.

I am presenting this paper for your criticism of my thesis that this particular epidemic was caused by transfer from house to house of a virulent phase of cholera from Cincinnati and by direct person to person infection rather than by infected wells or by flies. In the days before microbes were known the same dishes and especially the gourd or tin dipper in the water pail might have been used by the patient and the household at large hence the rapid succession of cases in single families.

The current use of home remedies, the habit of neighborly assistance in sickness and the ten mile trip to call a physician and his ten mile trip to his patient, all these speeded up the selection and death of the most susceptible.

The very brief (three weeks) time of persistence of the epidemic does not give time enough to infect the separate wells where cases were found unless we assume that the infection of the whole area was made from cases in Hamilton the year previous, that it wintered over and was washed into the wells by the very heavy rains which are reported just at the start of the epidemic.

Cholera is not always malignant and the serious type usually becomes milder in a few weeks because by that time it is working on the less susceptible of the population.

July 31, *Intelligencer* Deaths. Morgan-Ross Asiatic cholera July 10-31, 1834.

John Woodruff (7)

David Bell (60)

Samuel Conley (the first on Paddy's Run proper).

Keiday Slingsby

Martin Bissiers (Busseur)

Maurice Jones (65)

Dr. Bottenberg (28)

Old Mr. Hidlay (65)

Ephraim Van Vickie (22)

Mr. Sizelove

Mr. Venable (50)

Mr. Rust

Abel Appeltson (65)

Foster Bails (30)

Old Mr. French (70)

Jeremiah French (30)

Carman Ross (60)

Reuben Rude

Squire Carmack's son (15)

Henry Sefton (65)

Mr. Bissier's son (10)

Mrs. Margaret Bell (55) Both July 10.

Old Mrs. McCarty

Mrs. Maurice Jones (65)

Mrs. Slingsby

Mrs. Baker

Mrs. Davis (30)

Old Mrs Hidlay (65)

Young Mrs. Hidlay (35) born Ent.

Mrs Sizelove

Miss Conley (18)

Miss Conley (15)

Miss Anne Venable (18)

Mrs. Williams (55)

Old Mrs. Brenan

Miss Ent (18)

Mrs. Robeson (40) born Ent.

Miss Weaver

Mrs. Cormack (50)

Miss Cone (20)

Mrs. Faudree (25)

Miss Hindman

August 7 *Intelligencer*.

Mrs. Robeson's child

Mr. Day (23) stepson to Mr. Doyle

Deacon James C. Scott of Paddy's Run Church

Mrs. Abbott (35) born Bell

Mrs. Hindman (40)

Lydia Barns—neighbor of the Doyles

Miss Hindman (13)

49 or 50 deaths

MAP OF BUTLER COUNTY DATED 1836 BY JAMES McBRIDE, SHOWING OWNERS OF THE FARMS

6	5	4	3	2	1	
7	8	3 ⁹	2 ¹⁰ ₂	11	12	
18	17	16	15 ²	14 ¹	13 ²	
Morgan Township				Ross Township		
18	20	21	22	23 ⁴	24	19
30	29	28	27	126	25 [*]	30 ₂
31	32	33	34	35	36	31

DEATHS

Section 2—Van Vickie land. E. Van Vickie infected at Conley's wake.

Section 9—Charles Ent. Mrs. Hidlay (born Ent); Mrs. Robeson (born Ent).

Section 10—David Bell and wife; west part Section 10—Jeremiah French and father; daughter recovered.

Section 13—S. Robeson; two deaths.

Section 14—R. Woodruff. First fataality, John Woodruff 7 years old. Mrs. Abbott (born Bell).

Section 21—Hidlay.

Sections 23 and 24—Hidlay and Venable, neighbors to Carmack; Mrs. Carmack and son.

Section 24—John C. Jones; several cases; no deaths.

Section 25—In Shandon* (Paddy's Run Village) Samuel Conley, daughter, 18; daughter 15; Mr. and Mrs. Slingsby, Ann Venable.

Section 26—Abel Appleton; Doyle, Barns, Day.

Section 30—Foster Bails; Henry Sefton(?) from Hamilton County; daughter recovered.

In 1862 the *Ohio State Medical Society* met at White Sulphur Springs in June. The principal paper that year was read by Howard Culbertson of Zanesville, father of our own Dr. L. R. Culbertson. The address was on "The Use of Anesthetics in Midwifery."* For this he was awarded a gold medal. The article was an extensive one giving his own views as well as those of authorities throughout the world and extensive tables of many obstetricians and physicians in Ohio.

*Transactions of the Ohio State Medical Society, 1862, pp.

Proceedings of The Council

Procedure for Attack on Wagner Bill Outlined at Meeting on October 3; Plans for 1944 Annual Meeting Discussed

A REGULAR meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Sunday, October 3, 1943. The following were in attendance: President Sherburne, President-Elect Schriver, Treasurer LeFever; Councilors Swartz, Messenger, Noble, Brindley, McNamee, Rutledge, Lincke, Swan, Micklethwaite, Harding, and Knoble; Dr. Platter, member of Committee on Public Relations; Dr. Forman, Editor of *The Journal*; Executive Secretary Nelson and Assistant Executive Secretary Saville.

President Sherburne opened the meeting by re-emphasizing the importance of Councilor visits and regular meetings of county medical societies.

The minutes of the meeting of The Council held on July 11, 1943, and of the meeting held on August 8, 1943, were approved on motion by Dr. Brindley, seconded by Dr. Knoble and carried.

Membership statistics were reported as follows: Total membership as of October 3, 1943—6,734, consisting of 4,989 paid members and 1,745 military members; total membership as of December 31, 1942—6,726, consisting of 5,353 paid members and 1,373 military members.

On motion by Dr. Rutledge, seconded by Dr. Swartz and carried, The Council voted to continue during 1944 the same policy with respect to waiving dues for members in military service as that in effect in 1943.

1944 ANNUAL MEETING

On motion by Dr. Knoble, seconded by Dr. McNamee and carried, The Council authorized the holding of a 1944 Annual Meeting in Columbus early in May.

On motion by Dr. Rutledge, seconded by Dr. Micklethwaite and carried, the Committee on Scientific Work was requested to arrange a program somewhat similar to the Annual Meeting programs of past years, consisting of sessions covering a period of approximately two days and to include technical exhibits.

MATERNITY AND INFANT CARE PROGRAM

New developments in the emergency maternity and infant care program for wives and children of service men were reviewed, including the recent action of the Congress in passing a Deficiency Appropriation Bill amounting to approximately \$18,000,000 for the financing of such program in the various states.

MEDICAL SERVICE FOR DEPENDENTS OF MILITARY PERSONNEL

The following communication from Lt. Col. E. W. Hakala, M.C., Surgeon, Air Base Hos-

pital, Patterson Field, Fairfield, Ohio, was read and discussed:

"In the near future this organization is planning to provide an army medical officer to deliver obstetrical patients who are dependents of army officers and enlisted personnel. We are contemplating the use of civilian hospitals in nearby Dayton and Springfield, Ohio. As you probably know, this is the arrangement at many army posts. Such a service would be supervised by a medical officer of our staff who is a Fellow of the American College of Surgeons and a licentiate of the American Board of Obstetrics and Gynecology.

"Proper steps are being taken for approval of the State Department of Medical Education and Registration. We would appreciate the opinion of the Ohio State Medical Society concerning such a plan.

"Should we receive approval of the above agencies, we will, of course, make proper arrangements with the local medical societies and civilian hospitals concerned."

On motion by Dr. Noble, seconded by Dr. Swan and carried, the Executive Secretary was instructed to advise Col. Hakala that the policy of The Council on this question is as follows:

"It is the sense of The Council that the need for an arrangement such as that proposed must be determined on the basis of local needs and conditions.

"Conditions may prevail in a certain community which may make it desirable, perhaps necessary, for physicians in civilian practice to have the assistance of medical officers in order to meet the medical and health needs of the dependents of military personnel. The medical society and hospitals of the area are in the best position to determine whether or not there is a need for such supplemental services on the part of medical officers. Therefore, presentation of any such plan to the medical society and hospitals of the area involved would appear to be a logical step and their endorsement of the proposal should be obtained before it is put into effect."

The Executive Secretary was instructed by Council to send copies of the statement of policy to the Montgomery and Clark County Medical Societies and to the State Medical Board.

CONFERENCES WITH REPRESENTATIVES OF ARMY EMERGENCY RELIEF

Lt. Col. Spottswood W. Duke and Capt. T. G. Barfield, representing the Army Emergency Relief for the Fifth Service Command, appeared before The Council and requested the assistance of The Council on matters involving medical services for honorably discharged soldiers and the dependents of soldiers needing assistance.

Col. Duke pointed out that it was the policy of Army Emergency Relief to handle all assistance activities, including medical care, on a fraternal basis and to endeavor to provide emergency aid so that such individual would not have

to look to charity or relief agencies for such aid. He stated that it is the feeling of Army Emergency Relief that physicians rendering services to such individuals should not be expected to render services gratis and that the Army Emergency Relief desired to compensate physicians, but since the funds of Army Emergency Relief are limited that it would be impossible for that agency to pay physicians regular private-patient fees.

On motion by Dr. Schriver, seconded by Dr. McNamee and carried, The Council adopted the following policy on this question:

"That it is the desire of the medical profession to make a tangible contribution to worthy programs, such as that of Army Emergency Relief, to provide emergency assistance to honorably discharged soldiers until they can obtain employment or permanent assistance from the proper governmental agency and to the dependents of soldiers in need of assistance.

"That the fee charged by a physician rendering services in cases accepted by Army Emergency Relief should be on the basis of two-thirds of the average fee prevailing in the physician's community except in unusual cases where a compromise settlement should be worked out through conference with officials of Army Emergency Relief.

"That this arrangement should be regarded as a concession on the part of the medical profession for the duration of the war and as a contribution to the work of Army Emergency Relief, the purpose of which is to handle cases on a fraternal basis, making it unnecessary for soldiers and their dependents to become charges of official relief agencies.

"That the President appoint a special committee to confer from time to time with Army Emergency Relief on matters of policy and arbitration."

WAGNER-MURRAY-DINGELL BILL

The present status of the Wagner-Murray-Dingell Bill, providing for a Federal compulsory sickness insurance program, was reviewed. Members of The Council reported on interviews which had been held with Ohio members of the Congress and newspaper publicity, editorials, and action of various lay organizations opposing the proposal were discussed.

On motion of Dr. McNamee, seconded by Dr. Micklethwaite and carried, the Public Relations Committee was instructed to prepare literature and outline procedure for distribution of the literature and for conferences with state and local lay organizations on the Wagner Bill. It was reported that the committee is planning to meet the week-end of October 23 and 24 at which time instructions and advice of The Council would be acted upon.

PRACTICE OF MEDICINE BY HOSPITALS

A communication from a member of the State Association stating that a hospital in his community has adopted the practice of charging, collecting, and retaining fees for the professional services rendered in the hospital by a resident

who is paid a salary by the hospital, and inquiring whether such practice is legal or illegal on the part of the hospital and ethical or unethical on the part of the physician concerned, was read.

After a prolonged discussion on the question raised and a review of laws and court decisions, as well as the Principles of Medical Ethics, The Council, on motion by Dr. McNamee, seconded by Dr. Schriver and carried, adopted the following statement of policy and instructed the Executive Secretary to send a copy to all county medical societies and to the Ohio Hospital Association:

"If a hospital, a corporation, employs a physician at a fixed stipend or on a commission or percentage basis and charges and collects a fee for his professional services and retains the amount collected, regardless of whether the hospital profits or loses under such an arrangement, we are of the opinion:

"1. That an agency relationship exists between the hospital and such physician and that the familiar legal doctrine of *respondeat superior* applies, meaning that the hospital (a corporation) is responsible for the acts of such physician (its agent) and therefore is liable for the torts (wrongful acts) of the physician;

"2. That the hospital (a corporation) is itself engaged in the practice of medicine, as the hospital occupies the position of principal in an agency relationship involving the practice of medicine and, therefore, falls within the purview of the general rules of agency which establish the proposition that the principal, in effect, performs those acts which are performed by the agent;

"3. That, inasmuch as the practice of medicine by a corporation is unlawful under Ohio statutes, the hospital cannot legally practice medicine directly or indirectly by means of an agent, even though such agent may be a duly licensed physician;

"4. That it is unethical and unprofessional in accordance with the provisions of Article 6 of the Principles of Medical Ethics of the American Medical Association relating to contract practice for a physician to enter into an arrangement as described.

"The foregoing conclusions on the legal questions involved are based on numerous court decisions and legal opinions wherein the weight of the evidence, judicial reasoning and statutory authority favors the interpretations herein set forth.

"Some may argue that unlawful and unethical practices such as those referred to are being carried on in various communities and that no steps have been taken to stop or prevent them.

"Be that as it may, the fact that such unlawful and unethical practices are occurring, seemingly without interference, does not make such practices lawful or ethical.

"Legal processes are available to put an end to such unlawful acts on the part of a corporation and to revoke the license of a physician involved in the unlawful acts of the corporation. Ample authority is vested in a local medical society to invoke disciplinary action for violations of the Principles of Medical Ethics on the part of a member.

"The foregoing statements with respect to unlawful and unethical acts do not apply to an arrangement whereby a hospital, with the consent of a physician, undertakes to collect fees

on the account of the physician for services rendered by him in the hospital and when the patient is notified of the amount of the professional charges and is informed that the physician's fees are being collected by the hospital in his name and for him."

MISCELLANEOUS

Logan County Conference—Dr. Sherburne reported that representatives of the State Association met on October 1 with the Logan County Medical Society for the purpose of discussing with that society the possibility of inaugurating a medical service plan, primarily for rural persons, in that county under the Ohio Enabling Act. The conference was attended by the following representatives of the State Association: Dr. Sherburne; Dr. Schriver, the President-Elect; Dr. Hein, chairman of the Committee on Public Relations and Economics; Dr. Mundy, representing the State Association on the Ohio Land-Use Post-War Planning Sub-Committee on Health; Executive Secretary Nelson and Asst. Executive Secretary Saville. Dr. Sherburne stated that no action was taken by the Logan County Medical Society at that time, but that the society intends to consider the matter at an early date and advise the State Association of its decision.

Loan Fund Proposed—A communication from a member suggesting that the Ohio State Medical Association make a special assessment on all members not in military service for the purpose of raising a loan fund for members returning from military service in order to assist them in reopening their office and re-establishing their practice was considered. On motion Dr. Mickelthwaite, seconded by Dr. Lincke and carried, this communication was referred to the Committee on Public Relations and Economics for consideration and recommendations to The Council.

Resolutions Rescinded—It was reported that two county medical societies which had adopted resolutions precluding consideration of applications for membership for the duration of the war have, by official action, rescinded such resolution in compliance with suggestions of the Judicial and Professional Relations Committee, which had been approved by The Council, and that in the future such societies would handle applications for membership in the regular manner under the provisions of their constitution and by-laws.

Committee Activities—For the benefit of The Council the Executive Secretary reviewed the activities of the Committee on Industrial Health, stating that within the next few weeks a special pamphlet prepared by the committee would be issued. He also reviewed new developments in Procurement and Assignment activities.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Mr. Altmeyer's Prescription!

Mr. A. J. Altmeyer, chairman of the Social Security Board, Washington, D. C., spoke at the recent war conference of the American Hospital Association at Buffalo.

Mr. Altmeyer made some statements which those interested in preservation of the voluntary hospital system will find hard to swallow.

Also he made some statements with which many members of the medical profession will disagree.

For example, quoting from his remarks on expansion of social security and on making the hospital the center of medical practice:

"Many of us believe that the sound plan is to develop a single, national, contributory social insurance for all the people, giving simultaneously protection against unemployment, sickness, disability, death and old age.

"The Wagner-Murray-Dingell bills, recently introduced in Congress, propose developments to the same general effect. In addition to hospitalization benefits, they include the services of general practitioners and specialists, and laboratory and related services for non-hospitalized patients.

"These bills are sponsored and strongly endorsed by the principal labor organizations, which have declared that the wage earners of the country are ready to pay their share of the costs involved in comprehensive social insurance . . .

"We can be confident that in the future, even more than in the past, the hospital will be the center of coordinated services for the well and for the sick, a community center for prevention as well as for diagnosis and cure. Coordinated with clinics and health centers for those who do not need bed care, working in effective relations with the community-wide facilities of the public health agencies, and interlocked with the educational institutions of the universities and medical schools, the hospital of today is the health center of the future. There are new and larger opportunities ahead for the hospital administrator.

"Those who would make of the hospital a building in which to furnish bed, board, nursing and only technical services, and who propose to separate professional services from hospital care, are flying in the face of experience and progress. They would not merely stop the clock; they would turn it back. Their view cannot and should not prevail."

Doctor: Have you written your Congressman to send you a copy of the Wagner-Murray-Dingell Bill (S. 1161)? Have you let him know what you think of that bill?

Fundamentals in the Organization and Operation of an Industrial Health Program by a County Medical Society

*An Outline Prepared
and Distributed by the
Committee on Industrial
Health . . . Ohio State
Medical Association*

COLUMBUS, OHIO
OCTOBER, 1943



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Committee on Industrial Health, Ohio State Medical Association

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EDWARD J. MCCORMICK, Toledo, *Past-President*

**A limited number of copies of this folder are available at
the Columbus office of the Ohio State Medical Association.**

FOREWORD

HOW to establish better methods for conserving the health of those employed in industry, for preventing disabling injuries, and for the prompt rehabilitation of the disabled is a question of concern to labor, industry and the medical profession.

Since the industrial resources of the United States were mobilized for war, attention has been focused on the need for ways and means of eliminating factors which lower the working efficiency of those gainfully employed and of developing procedures which will return the disabled employee to his job in the shortest possible time.

Although industry and labor have established a remarkable record in the production of war munitions, it is conceivable that the amount of material which has not been produced because of injuries or disease among war workers may have been enough to have prolonged the war many months.

Moreover, consideration should be given to the vital part which industry will play in the post-war era—the period of world-wide readjustment and rehabilitation. Efficiency among workers will be as necessary then as it is today if the needs of the war-exhausted peoples in all parts of the world are to be adequately supplied.

That the medical profession should take a leading part in establishing sound methods for maintaining the health, and thereby the working efficiency, of all gainfully employed, is not only logical but necessary. Moreover, it is vital that the medical profession should prepare now to meet its responsibilities in programs designed to rehabilitate the disabled or maladjusted war veteran so he can be returned rapidly to gainful employment.

A practical plan of action for the medical profession, through its own state and local organizations, is suggested in this manual, prepared by the Committee on Industrial Health of the Ohio State Medical Association.

It is the hope of the committee that each county medical society will maintain an active committee on industrial health. It suggests that each local committee immediately follow through with as many of the recommendations presented herein as can feasibly be put into effect within the county.

Each county in Ohio may not need a completely organized industrial health program. Some of the recommendations offered may not pertain to some areas. For these reasons, the plan suggested has been made flexible. It can be used in whole or in part as indicated by local conditions.

It is the intention of the Committee on Industrial Health of the state association to function as an advisory agency and clearing house of information for local committees on industrial health. Local committees will be expected to initiate action and assume administrative responsibility. From time to time the state committee will offer new suggestions and will furnish further data. It will serve as a liaison with the Council on Industrial Health of the American Medical Association and other interested state organizations and groups.

In formulating the plan outlined in this manual, the state committee has received the active assistance and cooperation of the Council on Industrial Health of the American Medical Association and Dr. R. H. Markwith, state director of health; Dr. Christopher Leggo, Surgeon, (R), United States Public Health Service, and director of the Industrial Hygiene Service, State Department of Health; Dr. Robert Andre, chief, Medical Section, State Industrial Commission; and Dr. W. E. Oletz, medical investigator, Division of Safety and Hygiene, State Department of Industrial Relations. The committee desires to express its appreciation to those named for their helpful suggestions and advice during the preliminary conferences of the committee. Special recognition is paid to Dr. Leggo for his assistance in the preparation of this manual.

Ohio's industrial health program as outlined herein is designed not only as a war measure, but also as a long-range plan for meeting problems of the postwar period. Interest in industrial health and in industrial medical organization will not subside with the close of the war. Patterns for future activities in this field of medicine are now being drawn. For this reason, if for no other, the medical profession must lead the way by seeing that proper relationships are established between medicine, labor and industry and by directing the proper coordination of the activities of all groups interested in this question.

CHAPTER ONE

Objectives of the Program

1. To assist industry in providing an adequate industrial health service based on essential factors, adjusted to patterns of local medical practice and existing community health facilities.

2. To promote through the county medical society, sound policies and practices among physicians engaged in any form of industrial medical practice.

3. To provide a means whereby the local medical society will cooperate with those community health programs which will benefit the industrial worker.

4. To provide opportunities for physicians to obtain postgraduate and refresher education and educational material relating to the medical and health problems affecting workers.

CHAPTER TWO

Preliminary Organization

1. *Appointment of a Committee*—Each county medical society should have a Committee on Industrial Health, consisting of members of the society selected for their interest and their potentialities as leaders in the local industrial health program.

If feasible, the members of the committee should represent *private practice, industrial practice, and the health department.*

2. *Presenting the Program to the Society*—As soon as possible after the committee has met to consider initial steps and it understands the various activities which should be carried on as a part of the program, the committee should arrange, through the proper officers of the county medical society, to discuss the proposed program at a meeting of the society.

The member of the Committee on Industrial Health of the Ohio State Medical Association in whose area the county is located and the Councilor of the district should be invited to attend this meeting and to review the objectives and activities of the state committee and of the Council on Industrial Health of the American Medical Association.

This will give the society the proper background as to the necessity for a local industrial health program and information as to how the state committee and the American Medical Association's industrial health agency may assist the local committee in organizing and directing the local program.

3. *Need for Action Should be Stressed*—Why the physicians of a community through their county medical society should organize

and actively support an industrial health program is no longer a debatable question.

This point should be stressed: *Unless properly organized to advise management and labor on industrial health matters and guide their activities, the medical profession will discover too late that leadership has passed into the hands of others.*

Problems resulting from war-time industrial expansion, even though some of them may be temporary, have served to emphasize the fact that the field of industrial health and industrial medicine has been neglected by many in the rank and file of the medical profession. That situation needs correction immediately as the expansion of industrial health programs is inevitable.

For example, the difficulties encountered by the small plant in attempting to carry on an industrial program will be present—war or no war.

Previews of industry's plans for the post-war period are convincing evidence of the ever-increasing need for preventive medical programs in industry.

Prehabilitation programs established by many plants as a war-time measure have proved of great value. They will not be abandoned.

Rehabilitation of returning soldiers and sailors will focus attention on present programs for the rehabilitation of those disabled in the workshop and factory.

It is time for the medical profession *as a whole* to give industrial health the leadership which it must have.

Activities of the Local Committee

1. To sponsor programs for county medical society meetings devoted to phases of industrial health. (On request, the state committee will suggest competent speakers for such programs.)

2. To be prepared to offer suggestions and advice to local managements as to the soundness of their medical programs in the light of accepted standards of industrial medical practice.

3. To encourage physicians to study health hazards, health conditions, and working environments by personal visits to industrial plants so they will be prepared to advise both management and employees on preventive programs and procedures.

4. To advise physicians and managements of the legal responsibilities and limitations involved in the activities of nurses and lay personnel and to advocate procedures which will protect all those who participate in the medical program of an industry.

5. To encourage physicians to submit complete reports, based on accurate records, on industrial medical services and to transmit promptly reports which may be required by the State Industrial Commission and the State Department of Health.

6. To cooperate with the Committee on Industrial Health of the Ohio State Medical Association in the promotion of postgraduate and refresher education for physicians in industrial health and industrial medicine and in the distribution of educational material.

7. To assist the War Participation Committee of the local medical society, the War Participation Committee of the state association and the Procurement and Assignment Service for Physicians in meeting the medical personnel problems of the industrial community.

8. To cooperate with other professional organizations, with official and non-official agencies, with civic and educational organizations, with managements and with labor groups, individually or on a joint committee basis, in the maintenance or development of appropriate community programs of treatment, rehabilitation, prevention or education which affect the industrial population. (Specifically, there should be cooperation with the following groups, for example: local societies of dentists and nurses, health commissioners and their staffs, voluntary health organizations and those interested in specific fields such as tuberculosis, venereal dis-

eases, etc., luncheon clubs, women's organizations, groups interested in nutrition, local manufacturers' organization or chamber of commerce, labor organizations, Red Cross, local Council on Civilian Defense, and other civic organizations.

* * * *

In developing these activities, it will be necessary for the local committee to have reference material on file.

Members of local industrial health committees and physicians generally should consult one or several of the authoritative books and reports listed as references in Chapter Nine so they will be in a position to intelligently advise industrial groups on acceptable medical and health standards and procedures. Those who may desire a more complete list of references will be supplied with one on request.

The personnel and facilities of government agencies, such as the Industrial Hygiene Service of the Ohio Department of Health and the Division of Safety and Hygiene, Ohio Industrial Commission, should be utilized on technical matters and for consultation. The integration of the work of the practicing physician with that of official and nonofficial agencies which are qualified and prepared to make worthy contributions is not only desirable but necessary.

Obviously, to be assured of success, the program of the local committee should be such as to win the cooperation of labor, management, and the citizens of the community generally.

The support of the worker can be secured if he can be shown that an adequate health service at his plant will produce conditions that enable him to work with a minimum of lost time due to illness or injury and consequently with greater profit for himself and his family.

In conferences with the employer, emphasis should be placed on the fact that "health security" for employees will benefit him in the form of less labor turnover, less absenteeism from injury and illness whether industrial or nonindustrial, reduced compensation costs, and happier and more efficient workmen.

From the standpoint of the community at large, no argument can be more telling than the one that an industrial health program can help to minimize unemployment, alleviate suffering and distress, and promote mutual good will and cooperation between employers and employees.

CHAPTER FOUR

Industrial Medical Service and Workmen's Compensation

BECAUSE OF THE CLOSE RELATIONSHIP between industrial medical service and the Ohio Workmen's Compensation System, *one of the objectives of any local industrial health program must be to bring about a better understanding between physicians and the State Industrial Commission.*

Through county society meetings and educational material, efforts should be made to make physicians caring for disabled workmen or acting as health advisors to management, realize that they are vital cogs in the machinery which makes the Workmen's Compensation System go. Fundamentals to be kept in mind are:

1. Accurate and complete reports by physicians are a prime necessity if the compensation law is to be fairly and adequately administered.

2. Medical reports must be filed promptly to insure the prompt payment of compensation to the claimant.

3. Competent services must be rendered not only to save the life or health of the disabled worker but to return him to gainful employment in the shortest possible time.

4. The physician engaged in industrial practice today must be constantly seeking opportunities to improve his knowledge and skill with respect to occupational diseases, all of which are now recognized by the Ohio Workmen's Compensation Law.

5. Furnishing of healthful working conditions is one of the vital problems of present-day industry, so the physician today must be more than an industrial surgeon—he must be a health consultant to industry—as the elimination of health hazards has a primary effect on the number of disabling illnesses and the number of Workmen's Compensation claims filed.

6. In order to justify his appearance as an expert witness in Workmen's Compensation cases, the physician must possess the knowledge that will qualify him to testify, realizing that his testimony will influence the final decision, and that he must at all times conduct himself as an unbiased professional witness.

7. The points of views of both management and labor on the administration of the Workmen's Compensation System should be sought and considered by the industrial physician so he will have a better understanding of his own responsibilities in this field.

8. By all means, a physician handling Workmen's Compensation cases should be familiar with the law and the rules established by the

Industrial Commission with respect to medical services.

Since there must be cooperation between the State Industrial Commission and the medical profession to bring about improvements in the administration of the Workmen's Compensation Law, this is one more reason why each county medical society should have an alert Committee on Industrial Health and should include problems of Workmen's Compensation on its program of activities.

If physicians engaged in industrial practice in a community are provided with an opportunity to discuss their problems with a committee of the county medical society the sooner many of these questions can be taken up with the Industrial Commission and settled. A close working relationship has been established between the Committee on Industrial Health of the State Association and the Commission. *When Workmen's Compensation problems which affect the physicians of a given area arise, they should be analyzed by the local committee and then transmitted with recommendations to the state committee, which in turn can discuss them with the Commission.*

It has been said that the form of legislation pertaining to Workmen's Compensation is of less importance than proper administration of the law. *Improvements in administration can be accomplished if* (1) the physician engaged in industrial work will endeavor to make himself more capable of dealing with industrial disabilities, take a greater active interest in the preventive aspects of industrial medicine, and thoroughly realize his responsibilities and opportunities; (2) if use is made of local and state committees on industrial health as clearing houses for discussion of medical and administrative problems; (3) if the Industrial Commission will continue to exert efforts to bring about administrative improvements.

Service Which May Be Rendered by the Full-Time Physician in Industry

AMONG THE MANY DUTIES AND RESPONSIBILITIES which should be assumed by the full-time physician in industry, the following are of primary importance:

1. Provide curative care for injuries which are the result of industrial accidents or illness from occupational diseases.

2. Assist in controlling accidents and occupational disease hazards through cooperation with the Personnel and Safety departments of the industry.

3. Conduct pre-placement physical examinations with an understanding of the physical requirements of various departments in which the applicant might be employed. In case of rejection, advice should be given to the applicant with respect to correction of his defect, if correctible, or appropriate advice regarding rehabilitation and the type of employment which would be suitable if the defect is not correctible.

4. Make routine periodical physical examinations on regular employees with proper advice regarding defects.

5. Conduct special physical examinations for workers exposed to toxic substances periodically as required by the nature of the exposure.

6. Render to the employee while on the job reasonable first-aid or offer advice for non-industrial injuries or illnesses.

7. Consult with those suffering from any situation causing maladjustment to work; offer proper advice or refer them to private practitioners or community agencies where indicated.

8. Take proper steps which may be indicated to control communicable diseases among employees, including notification to the local health officers.

9. Maintain general supervision over health conditions in the factory and over health education carried on by personal interview or through literature for employees as a group. Special health programs should be initiated where facilities are available, such as examinations for tuberculosis, etc.

10. Keep accurate records of all services rendered with statistical summaries which will supply an index for health conditions and may point to particular health hazards which may be subject to correction or control.

The examinations referred to above are medical procedures. For that reason accurate records should be kept and the information should be treated as confidential to medical personnel except when permission is granted by the patient to reveal the data or a report is required by court order.

The employer should be informed of the physical fitness of the applicant by a code such as that recommended by the American College of Surgeons:

CLASS A or 1. Physically fit for any work.

CLASS B or 2. Physically underdeveloped or some minor anatomical or other correctible defect; otherwise fit for any work.

CLASS C or 3. Fit only for certain employment when approved and supervised by the medical department.

CLASS D or 4. Unfit for any employment.

* * * *

The employee suffering from a non-occupational disease or injury should be encouraged to seek care from an attending physician of his own choice. It is the duty of the industrial physician when such cases are brought to his attention to advise the employee to consult his own physician immediately or to refer the case to a physician in private practice in event the employee does not have a family physician.

Instances will arise where employees needing medical care for non-occupational disease or injury will be unable to finance the proper medical attention or applicants for employment will be found unfit for work due to correctible conditions, but who cannot finance remedial care due to their unemployment. Since the industrial physician will be confronted with problems of this kind, *he should be familiar with the sources or agencies of the community to which such individuals may be referred and from which they may receive assistance.* These facilities may include official health agencies, clinics, voluntary health associations or local welfare organizations.

CHAPTER SIX

Service Which May Be Rendered by the Part-Time Physician In Industry

THE SERVICES WHICH MAY BE RENDERED by the part-time physician are the services described in the previous chapter referring to the full-time physician, providing the number of employees is few enough to allow the complete service to be rendered on a part-time basis. Most frequently this is not the case. As a result several of the activities must be selected and others sacrificed.

It is difficult to name the activities in the order of importance in view of the fact that all of the services are essential for a well-balanced program. *However, two recommendations of the preceding chapter should not be sacrificed, namely: curative care for injuries or illness from occupational diseases, and accuracy of records.* If pre-employment or periodical examinations are made, the findings should be treated in the same confidential manner as the examinations made by the full-time physician.

The "on-call" physician actually can do no more than render care for injuries unless he

becomes converted to some extent into a "part-time" physician. *This requires regular attendance at the plant at a given time and this is encouraged even though the first visits be as seldom as once a week.* It is only in this way that the "on-call" physician can become familiar with the plant, its employees, its policies, its hazards, its problems, and its medical equipment. This familiarity will greatly enhance the ability of the physician to advise the management concerning the medical and health questions which inevitably will arise.

CHAPTER SEVEN

The Industrial Physician and Communicable Diseases

WHERE AN EMPLOYEE PRESENTS EVIDENCE of a disease in a communicable stage, public health demands that his fellow workers be protected. *This situation calls for cooperation on the part of the physician, the employer and the local health department.* Treatment again falls on the shoulders of the physician in private practice.

Recently considerable attention has been focused on venereal disease control programs in industry. For this reason, more extensive comments on this particular phase of communicable disease control would seem to be in order.

Methods to be employed in carrying out a program of venereal disease control among industrial workers will vary according to the local situation, with special consideration to facilities and service available.

An educational program should always be inaugurated as a part of any program attempted. This educational program should include educa-

tion of both employees and the employer as to the benefits to be derived.

Where employees or applicants for employment are given examinations to determine the existence or absence of venereal disease, such services should be carried out as a public health procedure. According to a statement of policy issued by the Advisory Committee on the Control of Venereal Diseases in Industry to the United States Public Health Service:

"There is no reason for denying employment to an applicant or for discharging an employee

CHAPTER SEVEN (Continued)

because an examination has revealed evidence of syphilis or gonorrhea provided:

"1. That the employee agree to place himself under competent medical management.

"2. That, if the stage of the disease is infectious, employment should be delayed or interrupted until such time as a noninfectious state is established through treatment and open lesions are healed.

"3. That syphilis exists in a latent stage.

"4. That, when disabling manifestations exist which would render such individuals industrial hazards to themselves, other employees or the public, employment may be deferred or denied.

"5. That provision be made, whenever possible, for occupational readjustments of employees who develop disabling manifestations that do not incapacitate them from performing some type of useful work.

"6. That workers with syphilis in any of its stages, and regardless of past or present treatment status, should be excluded from areas of toxic exposure, and that those having cardiovascular syphilis or neurosyphilis should not be exposed to such physiologic stresses as extremes of temperature, strenuous physical exertion or abnormal atmospheric pressure.

"7. That workers with gonorrhea should be allowed to work only under special medical observation during the administration of sulfonamide drugs"

While it is important that the results of all physical examinations of employees or applicants for employment be kept confidential, *it is of utmost importance that the findings of examinations for venereal diseases shall be considered confidential between the worker and the medical staff.* This provision should not exclude the physician to whom the worker is referred for treatment or the health authorities where reporting of venereal diseases is required, but information should not be furnished to others without the consent of the patient or on order of the court. In reporting to the employer, the medical staff should present only a general statement as to the physical fitness of the worker, using a general classification designation as suggested in Chapter 5.

CHAPTER EIGHT

Legal Responsibilities and Limitations of Nurses and Lay Personnel

THE DUTIES AND RESPONSIBILITIES of nurses and lay personnel employed to assist in the operation of the industrial health programs of various industries vary because of the differing occupational needs and health requirements of workers.

The question as to just what are the legal responsibilities and limitations of nurses and lay personnel engaging in industrial medical programs has become increasingly important under war-time conditions which have made it necessary for industry to conserve medical manpower by employing more nurses and a greater number of nonprofessional personnel.

The legal and professional angles of the question were analyzed several years ago by The Council of the Ohio State Medical Association. The following statement of policy adopted by The Council with respect to the activities of nurses and lay personnel employed by industrial and mercantile establishments is recommended as a guide:

"In the opinion of The Council, the practice of medicine by nurses and others, who have no legal right to do so, should be discontinued for the following reasons:

"1 Sick or injured workmen are entitled to efficient, competent medical care which cannot be provided by those possessing limited scientific knowledge and medical training—even by a registered nurse.

"2. The practice of medicine by a person who does not hold a certificate from the State Medical Board entitling him or her to do so, is unlawful (Section 12694, G.C.) and therefore against sound public policy.

"3. As set forth in Sections 1286 and 1287, G.C., a person is regarded as practicing medicine 'who examines or diagnoses for a fee or compensation of any kind, or prescribes, advises, recommends, administers or dispenses for a fee or compensation of any kind, direct or indirect, a drug or medicine, appliance, application, operation or treatment of whatever nature for the cure or relief of a wound . . . injury . . . or disease', excepting 'service in the case of emergency or domestic administration of family remedies'.

"Therefore, before a person, specifically a registered nurse, may legally render services enumerated above, unless such services come within the purview of 'service in the case of emergency', he or she must hold a

CHAPTER EIGHT (Continued)

certificate issued by the State Medical Board granting him or her the legal right to practice medicine and surgery.

"4. The term 'emergency' as used in Section 1287, G.C., has been defined by the Attorney General of Ohio to 'include such cases of sudden and unexpected illness or injury which call for immediate medical attention'.

"In that opinion, the Attorney General pointed out that no hard and fast rule as to emergencies which would be applicable in all cases could be formulated, but in the same opinion he stated, in effect, that emergency treatment is interpreted to mean temporary care given a sick or injured person until a legally licensed physician takes charge of the case and should be limited to an act which is aimed to save the life of the individual or to alleviate suffering pending the arrival of a physician.

"Obviously, the interpretation precludes the following services by a nurse or technician (cited for purposes of illustration) unless services are rendered under the personal supervision of a physician: Suturing cuts, removing foreign body from the eye under anesthetic, routine treatment of burns, prescribing, dispensing or administering for colds, boils, headache, dysentery, stomach disorders, skin diseases, sunburn, etc. Such services are not services performed in cases of emergency and the person rendering them is engaged in the practice of medicine.

"5. Rendition of services, which technically and legally are medical services, by a nurse or technician unless a licensed physician is present and directly supervising such services, or such services are authorized by the attending physician, is a violation of the spirit of the Ohio Workmen's Compensation Act and contrary to a standing regulation of the State Industrial Commission which, in effect, states that medical care of injured workmen must be rendered under the personal supervision of the attending physician and for which he is at all times responsible. That regulation precludes the payment of fees from the Workmen's Compensation Fund to a physician for services, unless such services are rendered by him or under his direct, personal supervision, indicating quite clearly that a physician has definite responsibilities toward his patients which cannot be delegated to others.

"6. Encroachment upon the practice of medicine by an unlicensed person constitutes a definite legal hazard for such person. He or she may be prosecuted for violation of the Medical Practice Act. In addition, such person, or his or her employer, runs the risk of being sued for damages for negligent treatment at the hands of an incompetent and unlicensed individual.

"Nurses employed by industrial plants and mercantile establishments can and do render indispensable assistance to physicians in their efforts to rehabilitate disabled employees and return them to gainful employment. However, the factory and store nurse—the nurse in private practice for that matter—should realize: (1) There is a definite line of demarcation between what constitutes the practice of nursing and the practice of medicine. (2) Even the graduate nurse who possesses much scientific education and training is not qualified to render unsupervised medical service. (3) The scope

of the nursing profession is limited and the nurse should not exceed her rights. (4) The nurse who encroaches upon the practice of medicine exposes herself to criminal prosecution and civil litigation.

"The industrial and mercantile executive should realize: (1) Good medical care—the kind which will bring about prompt rehabilitation of the disabled worker—cannot be supplied by persons lacking adequate medical training (2) The policy of permitting and encouraging nurses to render medical care to disabled employees, which services cannot be classified as emergency in character, is unfair to the disabled worker; unsound from a business point of view; and indirectly responsible for procedures which are unlawful"

* * * *

The Advisory Group of the Committee to Study the Duties of Nurses in Industry of the American Public Health Association offers the following statement of policy in its "Recommendations for Acceptable Nursing Practices":

"It is recognized principle that all nursing care should be given under the direction of a licensed physician. Standing orders are a protection to the nurse, to the worker and to the management. It is the responsibility of the industrial nurse to procure these written standing orders."

Suggested written standing orders have been prepared by the Council on Industrial Health of the American Medical Association. These will be made available to county medical society committees, on request, by the Committee on Industrial Health of the Ohio State Medical Association. Where no physician is responsible for the plant medical service, the nurses may obtain standing orders from the Committee on Industrial Health of the county medical society.

One general principle should be adhered to by all nurses and other personnel participating in a plant's medical and health program, namely:

Services rendered by nurses or nonprofessional personnel should be carried out according to instructions or procedures outlined by the physician in charge or, if no one physician is in charge, under standing orders clearly defining where the responsibilities of such personnel begin and end.

Education of Physicians in Industrial Health and Industrial Medicine

EDUCATION OF PHYSICIANS, *even those already engaged in industrial practice, must be a part of a successful industrial health program, for new processes in manufacturing inevitably bring new potential health hazards which medicine must know how to combat.* Moreover, medicine is not static, so new methods for handling industrial disabilities are being discovered almost daily.

Dusts, fumes, solvents and gases may produce occupational illness unfamiliar to the physician without special training. New processes, longer hours, increased employment of women, crowded plants, and other phases of the increased tempo of industry may result in injuries and fatigue which require special knowledge on the part of physicians.

One of the objectives of the Committee on Industrial Health of the Ohio State Medical Association, with the assistance of local committees, will be to sponsor educational opportunities in industrial health and industrial practice for Ohio physicians. The cooperation of local committees will be essential, especially in promoting interest on the part of society members. Following are some of the methods which will be used:

Refresher Courses: When feasible, it is planned to offer refresher courses on the fundamentals of industrial medicine and industrial health in several centers throughout the state. In some instances these will be similar in organization to the Regional Postgraduate Lectures, successfully arranged by the Ohio State Medical Association during years immediately prior to the war. Efforts may be made also to arrange more extensive courses—perhaps resident courses—at Ohio's three largest medical centers, Cleveland, Cincinnati and Columbus, with the medical school at each as the hub.

Articles in The Journal: Arrangements have been made with the Editor of The Ohio State Medical Journal for publication of authoritative articles on industrial medicine.

Addresses at Medical Society Meetings: The State Committee believes that each county medical society, especially a society in an industrial area, should devote at least one meeting—several meetings if possible—each year to a program on industrial health and industrial practice.

Internships in Industrial Medicine: It has been suggested by the Council on Industrial Health of the American Medical Association

that special "in-service" resident training courses be arranged for physicians wishing more intensive training. This entails cooperation on the part of industries having full-time industrial health programs. Definite plans for such courses have not been made but are under consideration by the state committee.

* * * *

There is an abundance of literature on the questions of industrial health and industrial medicine, but the average physician does not have time to study all of the coverage given to these subjects.

Therefore, the Committee on Industrial Health of the Ohio State Medical Association has prepared the following list of references which are recognized by authorities as among the outstanding, as well as most practical, contributions. Any physician desiring a more complete list will be supplied with one on request.

Manual of Industrial Hygiene and Medical Service in War Industries; William M. Gafafer, D.Sc., editor; W. B. Saunders Company, Philadelphia, publisher.

Medical Service in Industry and Workmen's Compensation Laws; M. N. Newquist, M.D., editor; American College of Surgeons, 40 East Erie Street, Chicago, publisher.

The Principles and Practice of Industrial Medicine; Frederick J. Wampler, M.D.; Williams and Wilkins Co., Baltimore, publisher.

Occupational Diseases; R. T. Johnstone, M.D.; W. B. Saunders Company, Philadelphia, publisher.

Occupational Diseases of the Skin; Louis Schwartz, M.D., and Louis Tulipan; Lea and Febiger, Philadelphia, publishers.

Essentials of Industrial Health; C. O. Sappington, M.D.; Lippincott, Philadelphia, publishers.

Publications of the Council on Industrial Health, A.M.A.; 535 N. Dearborn St., Chicago.

Ohio Selective Service Headquarters Asks Local Boards To Consider Action To Induct Available Physicians Who Have Failed To Apply For Commission

BECAUSE an insufficient number of physicians are voluntarily applying for commissions as medical officers to meet present needs of the medical corps of the Army and Navy, the Selective Service System has been compelled to take special action with respect to physicians under the new Selective Service program of drafting fathers to increase the size of the armed forces.

Acting on instructions from National Selective Service Headquarters, the Ohio Headquarters has requested all local Selective Service boards to review the files of all registrants, regardless of dependency, and to consider reclassifying registrants with children as 1-A in event the board does not have a sufficient number of childless registrants to meet current quotas.

Because of the acute need for medical officers, a special communication has been transmitted by the Ohio Headquarters to local boards requesting them to reopen and reconsider the classification of certain physicians who have been certified as available for military service by the Ohio Procurement and Assignment Committee.

Pursuant to orders received from the Procurement and Assignment Service, War Manpower Commission, the Ohio committee has transmitted to the Ohio Selective Service Headquarters the names of approximately 140 Ohio physicians who, after being declared available by the committee, did not apply for a commission in the Army Medical Corps. Some of the physicians on the list had been rejected by the Navy for physical disabilities but upon rejection by the Navy failed to apply for the Army Medical Corps which has slightly lower physical requirements than those of the Navy.

In the communication from Ohio Headquarters to local boards, the local board is advised that the physician-registrant named has been classified as available by the Procurement and Assignment Service and has not taken advantage of an opportunity to apply for a commission in the Army Medical Corps. The communication states:

"If he is not found entitled to a deferred classification under the regulations, he should be considered for 1-A classification and processing for induction. * * * may be notified that your local board is now reclassifying such registrants pursuant to Amendment to Local Board Memorandum No. 123, and that he will normally be processed for induction when his order number is reached."

The files of some of the approximately 750 Ohio physicians who were found to be physically dis-

qualified when they applied for a commission at some time during the past 18 months are being reviewed by the Office of the Surgeon General of the Army. In some instances the Surgeon General has indicated that such physician might now be able to meet the present physical standards of the Army Medical Corps and could be commissioned if available.

In such instances the Ohio Procurement and Assignment Committee has been requested by the Washington office of the Procurement and Assignment Service to make a reappraisal of the physician's present status and to advise as to whether he is now available or essential. Such reappraisals are now being made in various parts of the state by the members of the state committee in cooperation with the local War Participation committees. If any such men are found to be available at this time, they will receive an invitation from Washington to submit to another physical examination and to accept an appointment in the Army Medical Corps if found acceptable.

The Ohio Procurement and Assignment Committee had just received instructions and quotas under the new 9-9-9 intern and resident program. As soon as such data is analyzed, the committee will be in a position to provide hospitals with information and advice and to assist them in organizing their house staff for 1944. The assistance and aid of officials of the Ohio Hospital Association on this matter will be solicited, according to Dr. Robert Conard, Wilmington, committee chairman. Also, special data is being requested from Ohio hospitals on their house staff situations to help the committee in making its decisions.

NAMES ADDED TO MILITARY ROSTER

Since the October issue of *The Journal* went to press, the names of the following 28 Ohio physicians have been added to the military roster. This makes a total of 2,656 Ohio physicians in military or full-time government service for the duration, divided as follows: Army, 2,290; Navy, 305; Other, 61:

Name	City	Rank
Armour, Deane B.	Dayton.....	1st Lt., U.S.A.
Battin, Richard, III	Cleveland.....	Lt. (j.g.), U.S.N.
Boyers, James H.	Columbus.....	Lt. (j.g.), U.S.N.
Breyfogle, Ernest E.	Akron.....	Capt., U.S.A.
Cellar, F. A.	Cincinnati.....	1st Lt., U.S.A.
Davis, Adrian E.	Akron	Lt. Comdr., U.S.N.
Eckel, Robert E.	Cleveland.....	Lt. (j.g.), U.S.N.
Gans, Jerome Arthur	Cleveland Heights.....	1st Lt., U.S.A.
Griner, Ned	Circleville.....	Asst. Surg., U.S.P.H.S.
Guest, George M.	Cincinnati.....	Tech. Aide, Special
Haynes, Ormond L.	Marietta.....	1st Lt., U.S.A.

Name	City	Rank
Herman, Vincent G.	Youngstown.....	1st Lt., U.S.P.H.S.
Ickes, Howard J.	Canton.....	1st Lt., U.S.A.
Jacob, John Shaker	Heights.....	1st Lt., U.S.A.
Jobe, Charles H.	Cleveland.....	1st Lt., U.S.A.
Kistner, Robert W.	Cincinnati.....	1st Lt., U.S.A.
Larkin, John C.	Cincinnati.....	1st Lt., U.S.A.
LeFevre, John D.	Springfield.....	1st Lt., U.S.A.
March, Edgar J.	Canton.....	1st Lt., U.S.A.
Marmar, Geo.	Dayton.....	1st Lt., U.S.A.
Pearlman, Albert H.	Cincinnati.....	Capt., U.S.A.
Peiffer, Geo. Vincent	Genoa.....	1st Lt., U.S.P.H.S.
Potts, Asa W.	Cleveland.....	Dr., Civil Service
Reedholm, E. A.	Akron.....	1st Lt., U.S.A.
Spark, Isador	Chillicothe.....	1st Lt., U.S.A.
Spitzer, Richard G.	Massillon.....	1st Lt., U.S.A.
Stevenson, Jean M.	Cincinnati.....	Major, U.S.A.
Yauger, Geo. W.	Dayton.....	Capt., U.S.A.

WIN PROMOTIONS

Name	City	Rank
Adolph, Paul E.	Bellevue.....	Major, U.S.A.
Bartos, Paul Victor	Columbus.....	Capt., U.S.A.
Beynon, David E.	Girard.....	Capt., U.S.A.
Boice, Robert R.	Pomeroy.....	Major, U.S.A.
Brett, John D.	Cleveland Heights.....	Capt., U.S.A.
Brown, Walter J.	Conneaut.....	Capt., U.S.A.
Camp, Kenneth E.	Youngstown.....	Capt., U.S.A.
Chalker, Everett M.	Youngstown.....	Capt., U.S.A.
Evans, Harrison S.	Columbus.....	Major, U.S.A.
Falor, Wm. H.	Akron.....	Capt., U.S.A.
Guarnieri, Frank	Warren.....	Capt., U.S.A.
Hahn, Paul D.	Warsaw.....	Capt., U.S.A.
Hicks, Warren W.	Columbus.....	Major, U.S.A.
Hosking, F. S.	Cleveland.....	Lt. Comdr., U.S.N.
Jacka, Edwin R.	Bryan.....	Capt., U.S.A.
Johnson, Jas. B.	Columbus.....	Capt., U.S.A.
Kolb, Thomas V.	So. Charleston.....	Major, U.S.A.
Karrer, Herman E.	Plain City.....	Capt., U.S.A.
Kesinger, Herbert F.	McArthur.....	Capt., U.S.A.
Levin, James J.	Canton.....	Capt., U.S.A.
Martin, James F.	Cincinnati.....	Capt., U.S.A.
McAllister, T. F.	Coshocton.....	Capt., U.S.A.
McCaffery, Robert J.	Lakewood.....	Capt., U.S.A.
Mitchell, Wm. F.	Columbus.....	Capt., U.S.A.
Puppel, A. D.	Delaware.....	Capt., U.S.A.
Robinson, Harold A.	Elyria.....	Capt., U.S.A.
Romoser, Wm. K.	Columbus.....	Capt., U.S.A.
Sapadin, Albert	Cincinnati.....	Capt., U.S.A.
Smith, Trent W.	Cincinnati.....	Capt., U.S.A.
Smith, Wayne C.	Van Wert.....	Capt., U.S.A.
Stukenborg, Frank X.	Toledo.....	Capt., U.S.A.
Thomas, James J.	Alliance.....	Capt., U.S.A.
Tice, Raymond	Akron.....	Capt., U.S.A.
Tims, W. J.	Youngstown.....	Major, U.S.A.
Toomey, Rickard S.	Willoughby.....	Capt., U.S.N.
Wales, Craig C.	Youngstown.....	Capt., U.S.A.
Welter, John A.	Youngstown.....	Major, U.S.A.
Widrich, Jack	Cadiz.....	Capt., U.S.A.
Wood, Geo. H.	Leesburg.....	Major, U.S.A.

TABULATION BY COUNTIES

Adams	2	Guernsey	6	Muskingum ..	7
Allen	38	Hamilton	387	Noble	1
Ashland	11	Hancock	13	Ottawa	9
Ashtabula	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	5
Belmont	12	Highland	8	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	27	Holmes	2	Preble	7
Carroll	1	Huron	15	Putnam	5
Champaign	8	Jackson	1	Richland	38
Clark	32	Jefferson	31	Ross	23
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	17	Scioto	19
Columbiana	11	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	8	Stark	95
Cuyahoga	648	Lorain	35	Summit	143
Darke	6	Lucas	151	Trumbull	29
Defiance	4	Madison	6	Tuscarawas	19
Delaware	5	Mahoning	106	Union	2
Erie	10	Marion	16	Van Wert.....	9
Fairfield	9	Medina	13	Vinton	2
Fayette	2	Meigs	3	Warren	4
Franklin	213	Mercer	6	Washington	7
Fulton	6	Miami	13	Wayne	13
Gallia	5	Monroe	1	Williams	8
Geauga	4	Montgomery	129	Wood	16
Greene	8	Morgan	4	Wyandot	2
Total					2656

Maternity Care Applications Total 6,050; More Money Available

Additional funds amounting to \$473,000 have been allotted to the Ohio Department of Health by the U. S. Children's Bureau for financing the Emergency Maternity and Infant Care Program for Wives and Infants of Servicemen of the fourth, fifth, sixth and seventh pay grades. It is anticipated that this amount will be sufficient for ear-marking of the costs of cases authorized during October, according to Dr. R. H. Markwith, state director of health.

As of October 18, a total of 6,050 applications for care under the program had been filed with the department and up to that date, 3,800, authorizations had been approved. The backlog of applications is being disposed of as rapidly as they can be checked by the department.

The additional funds were made available by the Children's Bureau following enactment by the Congress of a deficiency appropriations bill of \$18,000,000 for financing the program throughout the country.

Efforts were made when the appropriations bill was before the Congress to have it amended to provide for distribution of this benefit to service men's families on a cash basis, as recommended by The Council of the Ohio State Medical Association and the American Medical Association. An amendment of this character was presented by Congressman Frederick C. Smith, Marion, Ohio, a physician, and was supported by six or seven other Ohio congressmen, who had been interviewed on the subject by representatives of the Ohio State Medical Association. However, the amendment was voted down.

Congress did make one important change in the procedure, namely, exclusion of the families of servicemen of the first, second and third pay grades from benefits of the program, effective October 1, 1943.

Editors Named on Committee!

The Board of Trustees of the American Medical Association has appointed Dr. Stanley B. Weld, editor of the Connecticut State Medical Journal, and Dr. E. M. Shanklin, editor of the Indiana State Medical Journal, as new members of the Advisory Committee to the Cooperative Medical Advising Bureau of the A.M.A. Other members of the committee are Dr. Walter Vest, editor of the West Virginia Medical Journal, Dr. W. C. Braun, advertising manager of the A.M.A., and Dr. Olin West, secretary of the A.M.A.

Doctor: Have you written your Congressmen to send you a copy of the Wagner-Murray-Dingell Bill (S. 1161)? Have you let him know what you think of that bill?

Review of Some of the Laws Which Protect Those In Armed Forces From Financial and Legal Difficulties

IN the September 27 issue of the *Ohio Bar Association Report* there appeared an article summarizing the principle points of a book, "Legal Effects of Military Service" by Mr. Ganson J. Baldwin of the New York Bar.

Through the courtesy of the Ohio State Bar Association, *The Journal* is privileged to reproduce the article believing that it will be of interest to Ohio physicians now serving in the armed forces and those contemplating entering the service, and will provide them with pertinent information on the various laws which aid those in military service.

The text of the article follows:

* * *

Men and women serving in our military and naval forces, and their dependents, are protected in many ways from financial and legal difficulties, by Federal laws which are effective throughout the United States.

This article is a summary of the relief usually obtainable by those who need it.

Advice and assistance in such matters is given by personnel officers of the armed forces, and by lawyers, Bar Associations, Legal Aid Societies, the Red Cross, and other patriotic organizations.

Debts. Payment of debts incurred before service, and taxes incurred before or during service, may be postponed by a court, and paid after service in installments, if ability to pay is reduced due to service. An application to a court is necessary to obtain this kind of relief.

Leases. Residential and business leases, made before service, may be terminated by a written notice effective 30 days after the next monthly rent day. The notice may be mailed or delivered to the landlord or to his agent. No application to a court is necessary. However, the landlord may apply to a court to prevent or modify a termination where the privilege is abused.

Evictions. If the rent is not over \$80 a month, dependents cannot be evicted from their home without permission of a court, which may postpone the eviction for up to three months if the tenant's ability to pay is reduced due to service.

Interest Rates. Interest is limited to 6% a year during any period of service after October 6, 1942, on debts incurred before service. The 6% must include all service charges or fees, except insurance. If a person agreed to pay over 6%, and can afford to do so, the creditor can apply to a court to fix a fair rate above 6%.

Income Taxes. Payment of Federal and State income taxes may be postponed, without interest, upon application to the tax authorities. Military pay up to \$1500 a year is exempted from Federal income tax. State income tax exemptions should also be considered (some states exempt all military pay).

Tax Sales. Property usually cannot be sold for taxes during service, except by permission of a court. It is advisable to notify the tax collector that the owner is in service. Interest on unpaid property taxes is limited to 6% a year. No penalties are charged.

Local Taxation. Income taxes and personal property taxes are not payable to a state, county or city, merely because a person is on duty there.

Installment Purchases, Repossessions, Mortgages, and Secured Loans. These are covered by laws prohibiting repossessions, foreclosures, etc., on obligations incurred before entering service, unless the creditor obtains permission of a court. The judge will try to solve such cases in a way which will be fair to both the debtor and creditor.

Storage Charges. Furniture, household goods, and personal effects in storage are protected against being sold or forfeited for storage charges during service and three months thereafter, irrespective of when the articles were stored or when the storage charges were due, except by order of a court. In such cases the judge will try to prevent hardship to either party.

Life Insurance. Premiums on life insurance up to \$10,000 will be guaranteed by the government to prevent lapses during service and two years thereafter, if the insurance comes within the requirements of the law. The insurance must have been taken out at least 30 days before entering service (or before October 6, 1942). Within two years after service the insured must pay the accrued premiums, in so far as the cash value is not sufficient to cover them, and if he fails to do so the government pays the insurance company, and the insured must reimburse the government.

Assignees of life insurance pledged as security for loans, etc., before the insured entered service, cannot turn the policies in for the cash value, etc., during his service or one year thereafter, except by permission of a court or by written consent of the insured during that period, unless the premiums are not paid (premiums are not considered unpaid if they have been guaranteed by the government). The rights of insurance companies as assignees under policy loans are not affected, but such policies are protected if the government has guaranteed the premiums.

Suits, Judgments, Attachments and Garnishments. Legal proceedings may be postponed or suspended by the courts. If anyone seeks a default judgment against a person in service the court will usually appoint an attorney to protect his rights.

Indorsers and Co-Makers. If a court grants relief to a person in service, similar relief may be granted to any other persons liable on the obligation, including indorsers, co-makers, guarantors and sureties.

Dependents. Wives, parents, and others, if dependent, may obtain relief as to many of their own obligations, such as installment purchases, mortgages, leases, secured loans, and storage charges, but not usually as to interest rates, income taxes, or ordinary debts, suits, judgments, attachments, life insurance premiums, etc. Dependents must apply to a court for relief, which may be granted unless the dependents' ability to pay is not reduced due to the service of the person upon whom they are dependent.

Penalties in Contracts. Penalties for failure to perform contracts may often be excused if due to service.

OLD-FASHIONED ANNUAL MEETING TO BE HELD MAY 9-10-11 AT THE NEIL HOUSE, COLUMBUS

THE Council has decided that the Ohio State Medical Association should plan to present an old-fashioned, three-day Annual Meeting in 1944.

It will be held in Columbus at the Neil House on Tuesday, Wednesday and Thursday, May 9-10-11.

The program will consist of general sessions, some section sessions, panel discussions, and a Technical Exhibit.

Preliminary plans for the program were mapped out by the Committee on Scientific Work on October 17. A real medical assembly will be presented unless conditions resulting from the war become especially acute.

Claims and Redemptions. The time to start a suit or proceeding, or to redeem property, is usually extended while a person is in service. However, advice should be obtained promptly if a person has a claim of any kind.

Rights to Government Lands. Homesteads, mining claims, mineral leases, desert and grazing rights, etc., on government lands, are protected, but persons having such rights should obtain advice about filing notices, etc.

Bail Bonds. When a person's service prevents the surety on a criminal bail bond from producing him in court the bond shall not be enforced during such service. The surety may be released entirely by the court, either during or after such service, if that would be fair under the circumstances.

Relief Pending Induction. Draftees are protected by most of these forms of relief from the time they receive an order to report for induction. They do not get relief as to tax sales, income taxes, or life insurance premiums until they are in service.

Re-employment After Service. If a person left a regular position to enter service he is to get back that position or one with like seniority, status, and pay, unless the employer's circumstances have so changed as to make it impossible or unreasonable to do so. He must still be qualified for the position, and must apply to get it back within forty days after honorable discharge. When he gets the position back, he cannot be discharged within one year, except for just cause. (Similar re-employment provisions have been made for those entering the U. S. Maritime Service after May 1, 1940.)

Government Insurance. Everyone entering service can get \$10,000 of government life insurance at low rates, and can keep up this insurance after the war. In case of death this insurance is paid in monthly installments to the beneficiary, not in a lump sum.

Columbus—Dr. Jonathan Forman spoke on "Vim, Vigor and Vitamins" at a meeting of the Ohio State Archaeological and Historical Society.

Cleveland—"Disease Hazards of the War", was the topic of an address made by Dr. Benjamin S. Kline at a meeting of the Lorain People's Forum.

Are You Sure About How the Workers Stand, Mister?

Physicians in the State of West Virginia have received a letter from the director of District No. 22, United Steel Workers of America, Huntington, which in substance is as follows:

"Enclosed is an outline of the Wagner-Murray-Dingell Social Security Act.

"The workers of this nation are generally in favor of this Act and have expressed their approval through resolutions in the various organizational conventions to which they belong.

"The organized opposition to this Act comes almost wholly from the organized medical profession and it is our purpose in writing you to determine whether or not the fight which is being led by the heads of your organization represent the wishes of your members generally.

"If you favor this legislation, the workers in this community would appreciate your indicating such approval to either Senator Wagner at the Senate Office Building in Washington, D. C., or Mr. Van A. Bittner, 718 Jackson Place, Northwest, Washington 6, D. C."

There is good reason to believe that many, many in the rank and file of labor do not wish to see the standards of medical services destroyed by a compulsory sickness insurance system but those who think that the leaders of some labor organizations are not hot for the Wagner Bill, standards or no standards, have another think coming.

Recent Promotions at W.R.U.

Recent promotions at Western Reserve University School of Medicine include: Dr. Raymond C. McKay, to associate clinical professor of medicine; Dr. William M. Champion, to assistant clinical professor of pediatrics; Dr. Clarence W. Engler, to assistant clinical professor of otolaryngology; Dr. Simon Koletsky to assistant professor of pathology; and Dr. Frederick R. Mautz, to assistant professor of surgery.

The Multiple Cost of Social Security: A Review of the Wagner Bill by a Chicago Insurance Executive

THE Wagner "cradle-to-the-grave" social security bill quite obviously has been studied attentatively by experienced insurance officials, accountants and counsel.

At a meeting of the International Association of Insurance Counsel in Chicago, a social insurance forum was held. One of the discussants was Mr. C. O. Pauley, Chicago, of the Great Northern Life Insurance Company, and president of the Insurance Economics Society of America. Mr. Pauley presented one of the most thought-producing reviews of the implications of the Wagner Bill which has been made to date. The text of his remarks is reprinted as follows by *The Journal* for consideration of members of the medical profession. Physicians would do well to provide their friends and neighbors with an opportunity to read it.

* * * * *

"I am engaged in the business of life, accident and health insurance, and if I am to be governed by the standards prevailing in Washington, any ideas I might have with regard to social insurance should be disregarded because of personal interest, and any knowledge I may have acquired by experience over the last forty years should be ignored. Let me make it clear, at the beginning, that any views I may express with regard to compulsory government insurance are not based upon any unfavorable effect that it might have upon my business, but are founded solely upon the effect which I believe such a program as proposed by Sir William Beveridge or the Wagner Bill will have upon our economic, social and political future.

"If compulsory insurance is a good thing for the American people, it would be just as foolish for private insurance to oppose its development as it would be for employers and labor to oppose the use of labor-saving machines. No one business or industry can, or should, stand in the way of the welfare of the whole people.

"I must have the type of mind that in these days would be classed as reactionary, for when any program of this type is suggested, I instinctively ask, 'What is it going to cost?' While Sir William Beveridge does make a very detailed estimate of the cost of his program in England, our own social planners dismiss the question of cost with a mere wave of the hand. The National Resources Planning Board, in discussing its social security recommendations, says, 'We have passed the stage when financing the program need be more than a technical problem. If we measure the physical and intellectual stature of our people and our vast national resources, financial problems need be of no hindrance. Their complexity need not stand in our way. We require only the will and the courage to make full use of our national resources. It is difficult to reduce the cost of the Beveridge Plan to the cost of a similar plan in the United States because of the great difference in con-

CLIP AND SAVE

Clip and save this article for your Wagner Bill File. You will find it handy for future reference.

ditions and the higher cost of living. The Beveridge Plan provides for a mere subsistence level of benefits. It has been estimated by very competent research men that a similar proposal giving a subsistence level of benefits would cost the United States approximately 15 billion dollars per year.

"The proposals of the National Resources Planning Board, the Social Security Board, and the Wagner Bill are based upon an entirely different theory and within certain upper and lower limits, the benefits are determined by the income upon which an individual and his employer have paid taxes, or, as the Wagner Bill puts it, 'have paid contributions.' Except for the Wagner Bill's proposed contributions of 12% of payrolls and 7% of the market value of the services of the self-employed, and similar vague statements of percentages from Secretary of Labor Perkins and the members of the Social Security Board, we have no estimate of the cost of the proposed social security plan for this country. The Social Security Board has a Bureau of Research and Statistics employing 120 people and costing \$258,000 in salaries and traveling expenses during the last fiscal year, but if they have issued any detailed discussions of costs such as was prepared by the Actuary of the British Government as a part of the Beveridge Plan, it has not come to my attention. During the last fiscal year, the 2% tax on wages for Old Age and Survivorship insurance amounted to 895.6 millions. It is estimated that for the fiscal year just ending this will run considerably over one billion dollars. On that basis, the 12%

tax proposed in the Wagner Bill would produce revenue in excess of 6 billion dollars from those under the present Act. In addition to this, it is proposed to bring under the Act many employed persons not now covered, and to place a tax of 7% upon all of the self-employed, numbering 20 to 25 million. This is not all of our social insurance program, however, because the railroad employees of the country, 2 million in number, have a separate Board and insurance system of their own. Neither does it include federal, state and municipal employees, estimated at 6.5 millions, most of whom are now covered under some retirement fund and other insurance benefits, and will eventually be included in any federal plan.

"I think it is perfectly safe to conclude that if the Wagner Bill were enacted into law, the initial tax under all of these programs would exceed 10 billion dollars annually. This is only at the beginning of the program, however. Eventually the most costly part of the program will be the Old Age and Survivorship insurance, the cost of which will finally be an additional 5 billion dollars per year or more.

"Neither the Beveridge Plan nor the Wagner Bill attempt to assume the full burden of old age annuities at the beginning. Just why they assume that this added burden can be absorbed after 20 or 25 years is not explained. Not only will practically all of our population over 65 then be eligible for old age annuities but by that time the proportion of our population which is over 65 will have greatly increased. I think a conservative estimate is that when our present Old Age and Survivorship insurance is in full operation, assuming there is no increase in benefits, it alone will cost 12% of the payrolls. The Wagner Bill assumes 3% for medical and hospital care, and 5% for unemployment and disability benefits. Both of these assumptions I believe to be too low. But in any event, the minimum cost when the program is in full operation would be 20% of payrolls of employees and self-employed up to \$3,000 per year.

"The nation, like an individual, has just so much money to spend, all of which must come from the labors and enterprise of its people. If we want a social security program of this magnitude more than we want other things, perhaps we can have it. In considering this program, however, we must bear in mind that there are certain other obligations which must come first. When this war is over, we shall probably have a national debt of 300 billion dollars or more. If we assume the interest on this debt is only 2%, and it is amortized over a period of 50 years, it will take 9.5 billions a year in taxes. We must finance rehabilitation of most of the world after the war, and for a time

must feed and clothe millions outside our own borders.

"Recently there appeared in the newspapers a report of the Investment Bankers' Association in which it was estimated that our own industrial development would require 5 billions a year for the first three years after the war. Our people want a constantly improved and extended system of education, we want more parks and recreational facilities, we want a great many things which are not in themselves productive, and in addition, we must support the vast number of municipal, state and federal employees, and the costs of the services which we hope they will render us. All of this must be supported by free enterprise. You can take only so much in the way of taxes or contributions from the results of free enterprise without 'killing the goose that lays the golden egg.' Can our free economy, in addition to all the other burdens it must carry, support a compulsory government insurance scheme which will impose a tax of 20% or more on payrolls and take 15 to 20 millions from the earnings of those who work and produce and redistribute it to those who do not work and who are not productive?

"If we embark on a social insurance scheme, the cost of which proves to be too great for our national economy to sustain, just one of two things will happen—either the actual benefits will be reduced by an inflation which reduces the purchasing power of the dollar with all of its attendant evils, or, as is more probable, the failure of free enterprise to give full employment and to sustain the social security burden will result in a demand that the government take over more and more of the functions now performed by private enterprise until we have a compulsory socialized economy.

"But the cost will not be entirely economic. It is even more difficult to estimate the social costs in the short time allotted to me. I cannot go into detail with regard to all the social ramifications of such a program. What will be the effect upon the character and the enterprise of a generation which knows that from before its birth in a government hospital, until it is laid away in the grave, a benevolent governmental bureau will pay the costs of being born, the costs of its education, will supply its recreational needs, will furnish medical services and hospitalization in illness, provide an income during unemployment and sickness, and a pension if permanently disabled or retired by old age? What becomes of the incentive to rise above the conditions in which the individual is born? Will it not result in the rise of only a few who are born with great inner driving power and an unusual ambition, while the great mass of our people settle down on a dead level of security such as prevails in most European

countries? Is it not possible that we may overreach ourselves in our efforts to give every man complete freedom from want and from fear without any responsibility on his part? It was the desire to achieve freedom from fear and from want for themselves and their families which urged men on from our Eastern Coast to settle the wilderness and the prairies and has made our nation what it is today. Perhaps the striving for the goal has been and is more important in the life of a nation than the goal itself.

"Compulsory social insurance will also have its political costs. Here again I can only touch one phase of the subject. During the last quarter of a century, the federal government has been increasing its powers and its functions at a rapid rate. Out of this has grown a bureaucracy which is increasing at an amazing speed. It is not wholly a product of the present administration, but its growth during the past decade has been tremendously accelerated. I think few of us realize the danger involved in this rapid growth of bureaucracy. It is not confined to Washington but is spreading all over the country. The State of Ohio has 25,000 state employees. There are 90,000 federal employees in the state. Massachusetts has 21,000 state employees. There are 129,000 federal employees in the state. Pennsylvania has 44,500 state employees and there are 215,000 federal employees in the state. Wyoming operates its state government with 1,100 state government employees, but there are 6,200 federal employees in that state. This does not include the armed forces. In addition to all of these various governmental bureaus, each vying with another for an increase in its importance, the amount of money it can spend, and the number of people it can employ, we have more recently developed hundreds of governmental corporations, some of which are not even audited by the Treasury or any other governmental department. The American bureaucrat seems to have a peculiar genius for hiring additional employees. The OPA has 2,700 lawyers. England which has a price control organization similar to the OPA has managed to struggle along successfully with just 10 members of the legal profession. I am indebted to Senator Harry F. Byrd of Virginia for these facts and figures, and he calls this growing bureaucracy a Frankenstein Monster. But our existing bureaus will be completely overshadowed by a bureau which will be necessary to administer a social security system such as is contained in the Wagner Bill. The Social Security Agency has over 31,000 employees and already the Social Security Board has over 13,000 employees, which does not include the unemployment compensation administered by the states. The greater part of these employees are engaged in administering the Old Age and Survivorship

insurance, which paid beneficiaries only 110 million dollars in the last fiscal year. The Wagner Bill would empower the Social Security Board to take over the state unemployment agencies, to put on a system of benefits for total and permanent disability, temporary disability and hospital and medical care. This would necessitate a federal bureau with representatives in every city, village and hamlet in the country who would go into every city and farm home. I do not need to point out the political implications of such a bureau upon the tender ministrations of which every individual would at one time or another during his lifetime be dependent.

"I have never been very much afraid we would lose our liberties to a man on horseback. At worst, that would be only a passing phase, dependent upon the health and life of one man. But bureaucrats go on forever. Change of administrations may impede their advance for a time, but their steady progress to more and bigger and better bureaus, and more bureaucrats, goes steadily on. If we lose our liberties, it will be to millions of federal employees who more and more are regulating our individual lives and curtailing our individual freedom. The American people are just beginning to sense the danger in this vast governmental organization. Will they be aroused in time to prevent its getting a strangle hold upon us?

"You may say, as they told me down in Washington at the Social Security Board, 'You don't want the Government to do anything.' I do want the Government to do everything that cannot be done by private enterprise or that it can do better than private enterprise, and which will not impede or destroy private enterprise. Impelled by the economic and political pressure of the early 1930's, we embarked upon a system of compulsory government insurance limited to old age annuities, benefits for surviving widows and children and unemployment compensation. These have operated only during the period of increasing employment. They have not existed long enough to prove themselves or to indicate what their ultimate effect upon our economy will be. How will they operate in a time of depression? I believe they should be given time enough to prove themselves before venturing upon the much more difficult and costly fields of disability, medical care and hospitalization. I believe in social security, but I want to see it achieved by the efforts of the individual as far as possible by his own initiative. I believe the government has a great place in such a program. Any system of social security, private or public, is based upon nearly complete employment. Even Sir William Beveridge assumes that no system of social insurance can survive prolonged mass unemployment. And the government should bend every effort to prevent periods of mass unem-

ployment in private enterprise and to make possible at all times profitable employment in private enterprise for all but a small proportion of its employables. We have made only a small beginning in conservation of health and the prevention of preventable diseases. The expenditures of the government for health conservation and the elimination of communicable and other preventable diseases should be greatly expanded. The governmental efforts should be directed primarily at the causes of unemployment, accidents and disease, and to the rehabilitation of those who have become impaired. In my conception, the efforts of government should be addressed primarily to the underlying causes of unemployment and disability, rather than placing the emphasis upon paying its citizens for being unemployed or sick. It should encourage its citizens to provide against such contingencies by education, by savings, by insurance and all other means available; and should provide for those whose needs are inevitable by a judicious system of public assistance, rather than fasten upon the whole American people a vast compulsory social insurance program administered by an ever-growing bureaucracy."

Centennial Celebrated By Western Reserve Medical School

The School of Medicine of Western Reserve University celebrated its One Hundredth Anniversary on October 27-28, at Cleveland. Anniversary ceremonies were held on the 27th, and alumni clinics and commencement activities on the 28th.

Speakers included: Dr. George H. Whipple, dean of the School of Medicine, University of Rochester; Dr. Alan Gregg, director of medical sciences, Rockefeller Foundation; Dr. Reginald Fitz, lecturer on the history of medicine, Harvard Medical School; Dr. Horace N. Korns, professor of medicine, State University of Iowa College of Medicine; Dr. Ralph W. Waters, professor of anesthesiology, University of Wisconsin Medical School; Dr. Clarence D. Selby, medical consultant, The General Motors Corporation, Detroit; Dr. Daniel L. Kirby, professor of ophthalmology, New York University College of Medicine; Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati College of Medicine; Dr. Harry Goldblatt, professor of experimental pathology, Western Reserve University; Dr. Frank P. Corrigan, U.S. Ambassador to Venezuela; Dr. Frederick C. Waite, professor emeritus, histology and embryology, Western Reserve University; Dr. Torald Sollmann, professor of pharmacology and dean of the School of Medicine, Western Reserve University.

Dr. C. C. Sherburne, Columbus, President of the Ohio State Medical Association, represented the Association at the anniversary celebration.

One of the Best Medical Meetings of the Year!

OHIO physicians have an opportunity November 16-18 to attend one of the outstanding medical meetings of the country, when the Southern Medical Association will hold its 37th Annual Meeting at Cincinnati.

Activities will include two general sessions meeting concurrently Wednesday and Thursday, Nov. 17 and 18, one representing the surgical specialties and the other the medical specialties.

The meetings, scientific exhibits, technical exhibits and hobby exhibits will be in the three principal downtown hotels—Netherland Plaza, Gibson and Sinton—with headquarters at the Netherland Plaza.

The first day of the meeting—Tuesday, November 16, will be devoted to general clinical sessions, and will be known as "Kentucky and Ohio Day." The day's program will be presented by physicians from the two states.

Additional information concerning the meeting can be obtained by addressing the Southern Medical Association, Empire Building, Birmingham 3, Alabama.

Fine Program Given at Meeting of Northwestern Ohio Society

Msgr. Maurice F. Griffin, Cleveland, a trustee of the American Hospital Association, scored the Wagner-Murray-Dingell bill as "czaristic, revolutionary and unnecessary" in an address at the luncheon session of 99th Meeting of the Northwestern Ohio Medical Society, attended by over 250 physicians at the Commodore Perry Hotel, Toledo, October 5. Other speakers at the session were: Dr. C. C. Sherburne, Columbus, President of the Ohio State Medical Association, and Charles S. Nelson, the Executive Secretary. Dr. Edward J. McCormick, Toledo, was the toastmaster.

Speakers on the scientific program were: Dr. Hampton Pharr Cushman, associate professor of obstetrics and gynecology, Wayne University, Detroit; Dr. John Renshaw, Cleveland Clinic; Dr. Max Peet, professor of neurological surgery, University of Michigan; and Dr. John A. Toomey, professor of clinical pediatrics, Western Reserve University School of Medicine.

The society voted to have the 1944 meeting in Findlay next October. The following new officers were elected: Dr. W. B. Recker, Leipsic, president; Dr. Martin W. Diethelm, Toledo, vice-president; Dr. John M. Leahy, Tiffin, secretary; Dr. E. L. Brady, Marion, treasurer.

WAR NOTES

Lieut. Col. Derrick Vail, formerly professor of ophthalmology at the University of Cincinnati College of Medicine, and now Army Senior Consultant in Ophthalmology, was one of the members of the United States Army Medical Corps specialists who were guests of their British colleagues at the recent Thirtieth Annual Meeting of the Ophthalmological Congress at Oxford, England. Colonel Vail's son, Fighter Pilot Derrick Vail, III, lost his life in February, 1942, when participating in a raid as a member of the Royal Canadian Air Force stationed in England.

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Columbus colleagues have received letters from Lt. David G. Dillahun, formerly of Columbus, who is a base surgeon at an air field in North Africa.

* * *

Capt. Mark G. Herbst and Lt. George W. Campbell, graduates of Western Reserve University of Medicine, are prisoners of the Japs. Campbell entered the army from Elyria Memorial Hospital.

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Whereabouts of some of the Toledo medicos who are in the services per their letters to the Toledo Academy . . . Capt. J. M. McWilliam, APO No. 464, Postmaster, New York, is with an anti-aircraft unit in North Africa; writes that sanitation is the big worry . . . flies, sun and dust bad . . . Writing from Ney River, N. C., Lt. Comdr. A. R. Klopfenstein says it's famous as a resort but he prefers Northwestern Ohio . . . His new address is Camp Pendleton, Calif. . . . Lt. D. K. Levin says the existence in the Majave Desert is pretty rugged and hot . . . yearns for the Friday night academy meetings . . . Capt. W. A. Baird is in the Operative Surgical Section of the 29th Evacuation Hospital, APO No. 4672, Postmaster, San Francisco . . . He's still picking the dirt and mud out of his eyes and teeth after crawling 75 yards through mud, water and barbed wire with machine gun bullets whizzing by 30 inches overhead, declares Capt. M. W. Selman, Fort Sill, Okla. . . . Things are quiet but may be the prelude before the storm, communicates Capt. Matthew Ginsburg, Medical Hospital Ship Platoon, Camp Stoneman, Calif. . . . Capt. Russell L. Shively is at Camp Bowie, Texas, after two and one-half years overseas.

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Extract from letter written by Captain M. R. Rossmiller, Cleveland, now on duty as a parachute doctor in North Africa:

"I now have done over forty parachute jumps which, I imagine, is the record for any doctor in the American Forces. We were all sad because we missed the drop on the Sicilian invasion but possibly our time is coming. I haven't been doing too much medicine but have seen numerous fractures and considerable G.I. work with the epidemic of diarrhea we had here several months ago."

* * *

More news about Toledo M.D.'s in the service . . . Capt. W. W. Green was in to get his family and take them back with him to Louisiana . . . Lt. Leo Weiss spent 10 day's sick leave in Toledo . . . Maj. M. A. Schnitker has returned to Valley Forge General Hospital, Phoenixville, Pa., after a few days at home . . . Lt. Comdr. W. A. Neill has returned to San Diego after a lively time at home . . . Has had three attacks of malaria but feels swell, writes Capt. I. Krishna from the South Pacific.

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Here and there with Summit County medical officers . . . Capt. R. M. Bartlett is taking a special course in thoracic surgery at the University of Michigan . . . Capt. Raymond Tice is convalescing from a chronic dysentery somewhere in Australia . . . Promotions: Capt. W. H. Falor, Fort Sam Houston, Texas, and Capt. E. E. Breyfogle, Canal Zone.

* * *

There are a lot of laughs in the following excerpt from a letter received by the Mahoning County Medical Society Bulletin from Capt. Joseph Colla, now located at a "secret camp" in Virginia:

"As you know, on Sept. 21, 1942, I left my beloved children and dear wife and was ordered to Fort Sam Houston, Texas, which is located just outside of San Antonio. There, I thought army life was a bed of roses, because the climate the romantic city, and the new experiences made me feel like in Paradise—but this life sublime only lasted for three days—when suddenly I received orders to report to Camp Bowie, Texas, immediately. Reaching Camp Bowie the next day I had the greatest disappointment of my life; because this camp is situated one hundred thirty miles from any city in any direction you travel; Fort Worth is 130 miles north; San Jose is 130 miles west; Waco is 135 miles east, and San Antonio is 190 miles south. The man who wrote the song, 'Deep in the Heart of Texas,' must have had Camp Bowie in his mind.

"Anyway in Camp Bowie I was appointed the official obstetrician. Who in the world could have dreamed that I was going to deliver babies in the army? But I was kept busy there because

it seems to me that hundreds of soldiers had their families there and were very busily engaged in raising families. Well, on Dec. 16, 1942, I was ordered to the U. S. A. General Dispensary, Pentagon Bldg., Washington, D. C. Arrived there on Dec. 21, 1942, and certainly had a swell time trying to find myself a furnished room. However, after hunting for about 12 hours, and I spent about forty dollars on taxi-cabs, I was able to locate a room 14 miles away from the Pentagon Bldg. Here at the U. S. A. General Dispensary I examined hundreds of 'brass hats,' namely generals, colonels, high class politicians and celebrities. A few of them were Fiorillo La Guardia, Peleth from N. Y., etc., etc.

"Well, from the General Dispensary I was ordered on a special mission which in sixteen days took me to South America, North Africa, Canada and back to the greatest country in the world—U. S. A.

"On August 12, 1943, I was ordered to a secret camp in Virginia. Here we are forbidden to divulge the location and name of the camp—but believe me this is heaven—here we have swimming pools, a horse for each officer for riding, golf course and no expenses. My job is equal to a major but the politicians receive all the promotions and the poor medical doctors must wait. Well, just received a card from Dr. Scarnecchia—he is on his way to El Paso, Texas. Everytime I hear the word 'Texas' I get the chills.

"My letter sounds rather humorous, but I think every doctor in the army could write a book full of funny stories and sad events. Since Sept. 21, 1942, I lost 26 pounds in body weight, feel 20 years younger, but my hair is all gray now instead of gray and brown—although I keep on saying to myself 'It's worth the sacrifice,' because I feel that I am doing my share for the sake of our country and for our future generations."

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It is reported that Lt. Irvin Schaen, formerly of Middletown, is in critical condition at a Base Hospital in Honolulu. While on duty at the Russell Islands, he received a shell wound in one of his legs.

* * *

Keeping you posted on Columbus physicians serving with the armed forces . . . Capt. Willard B. Andrus writes he is now connected with the 251st Station Hospital at Camp Carson, Colo., as chief of medicine . . . Capt. J. M. Gettost is now reported to be in the Hawaiian Is. . . Maj. Frank E. Hamilton and Capt. Robert D. Myers are overseas with an Auxiliary Surgical Group . . . Major Warren W. Hicks is now serving in England with an Engineers Regiment . . . Also reported overseas is Capt. A. C. Wyker. He is serving with the 756th Railway Shop Bn. . . Major M. David Burnstine has been transferred from Fort Custer, Michigan, to the 59th Portable Surgical Hospital, Camp Ellis, Illinois . . . Capt. W. B. Harris was home on leave, after which he returned to his station in Charleston, South Carolina . . . Major C. S. Junkermann's overseas address is 262nd Station Hospital, A. P. O. No. 4778, c/o Postmaster, New York, N. Y. . . Instead of joining the Navy to see the world, Major Phillip T. Knies joined the Army and is seeing the world. Major

Knies is a member of a special group assigned to make a world-wide survey on quarantine . . . Lt. Chas. W. McGavran II has been transferred from Atlantic City, New Jersey, to the Long Beach Army Air Base, Long Beach, California . . . Lt. Harry W. Topolosky, who was injured in the battle of Attu, has been transferred from the Barnes General Hospital at Vancouver, Washington, to the new Fletcher General Hospital at Cambridge, Ohio. Lt. Topolosky's condition is reported to be improved.

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Commander Charles J. McDevitt, a past president of the Cincinnati Academy of Medicine, is a senior surgeon in the Public Health Service and is chief of medical personnel at the Coast Guard Training Station, St. Augustine, Fla.

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Recent graduates of the School of Aviation Medicine, Randolph Field, Texas, included the following Ohio medical officers: Lt. Nicholas G. Amato, Cincinnati; Lt. Jack J. Berry, Cleveland; Maj. Robert F. Corwin, Dayton; Maj. Arthur F. Dorner, Akron; Lt. James A. Ellery, Shelby; Maj. Glen K. Folger, Cleveland; Lt. Reuben H. Hamman, Waterville; Maj. John R. Harding, Cincinnati; Maj. Francis J. Heringhaus, Mansfield; Maj. Charles S. Higley, Cleveland; Capt. George F. Hilles, Cleveland Heights; Lt. Harold L. Keiser, Fremont; Lt. Howard Lauer, Dayton; Lt. William R. Liebschner, Deshler; Capt. Earl D. McCallister, Chillicothe; Lt. John Miglionico, Cleveland; Capt. Morris S. Osherwitz, Cincinnati; Capt. Adolph B. Schneider, Jr., Cleveland; Lt. John R. Schroder, Cincinnati; Lt. Malcolm E. Switzer, Galion; Capt. Harold O. Tagett, Rock Creek; Lt. Stanley W. Whitehouse, Cincinnati.

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Extract from letter written by Lt. David D. Dunn, Cleveland, who has been in the Army for two years and served eighteen months in Iceland before going to England.

"I'm now in Merrie England. Suffice it to say that I feel quite reborn though still a little dazed by being suddenly plunged into civilization after a year and a half of that nom de nom other place. The trees, flowers, hedges, hospitable people, decent-sized horses, and the universal use of the mother tongue still enchant me, and I swear I'll never again take such things for granted. The other day I got up to London and had a wow of a time—for forty-eight hours that is. I was like the yokel taking his first look at the big city and shied from taxis and buses like a skittish horse. Hearing some good music, seeing John Guilgud in a cracker jack of a play, and sleeping in a real bed with box springs for the first time in eighteen months was an experience I'll not get over for sometime, so forgive me if I sound a little euphoric."

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News notes about Mahoning County medical officers . . . Capt. Densmore Thomas is at Camp Livingston, La. . . "one of the finest" where Capt. Kenneth Camp is executive officer of his

company . . . He's still regimental surgeon with the 506th Parachute Infantry, Maj. Louis R. Kent writes from Ft. Bragg, N. C. . . . Maj. Gordon Nelson is at the Post Hospital, Camp Breckenridge, Ky. . . . Maj. John Noll, Jr., left Chicago when the Army disposed of Hotel Stevens and is now located at Jefferson Barrack, Mo. . . . John writes that Capt. S. W. Weaver is chief of neurological section, Station Hospital, Santa Ana, Calif. . . . Capt. B. M. Brandmiller sends greetings from Fort Ord, Monterey, Calif. . . . Says he and his family recently had a great reunion with Brack Bowman and family and Sam Weaver and his family at Laguna Beach . . . Capt. Henry Sisek is in Hawaii, where he's taken some slick pictures of Hula Hula dancers, etc. . . . and sent them home to Mrs. Sisek . . . After a leave with his family, Maj. R. E. Odom has returned to Salt Lake City . . . The following were recently promoted to rank indicated: Capt. M. M. Kendall, "somewhere in England," Maj. J. A. Welter, Camp Beale, Calif., Maj. W. J. Timms, in England, Capt. Everett M. Chalker, Las Vegas, N. M. . . . Lt. Comdr. Herman S. Zeve was home on leave from Trinidad, British West Indies, recently, after a year there . . . Capt. Asher Randell is chief medical officer at the Lexington Signal Depot, moving there from the Ravenna Ordnance Depot.

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The Purple Heart has been awarded to Capt. Paul D. Hahn, formerly of Warsaw, who was wounded in the Sicily campaign.

* * *

Lt. T. Reid Jones, M.C., U.S.N.R., Cleveland, describes his experiences in Sicily as follows:

"Came in on the invasion and saw some of the fireworks at close-enough range, but soon the fighting got ahead and the sector we were in quieted. Quite a few casualties came our way but far fewer than was anticipated. The work of the evacuation hospitals is very interesting. They operate in the dust with good results, are complete units with no engineers or anything else attached, and can pack the whole 450-bed outfit and put it on trucks in six hours. These people seem very glad to see the Americans. They have had a pretty tough time between bombs and privations. I think most of them have had no meat for a long time and not much of cheese and fish; but they aren't interested in our canned willie; all they ask for is cigarettes. You would think cigarettes the staff of life. On the other hand, the souvenir-hunting Americans pay ridiculous prices for pistols, and the Sicilians certainly have them! They grow very fine fruits and vegetables. Last night I took dinner with a Sicilian doctor. The menu was fried egg plant, small fish in olive oil, black bread, lightly cooked green peppers in a sauce; custard (goat milk?) with ersatz chocolate sauce, honey dew melon, fresh figs, yellow grapes, and ersatz coffee. There were ten in the family. Their conversation didn't show much over all interest in the War but in their own damaged town and the future of Sicily—not Italy). We were served on some of the finest linen I ever saw."

Col. Albert S. Dabney, M.C., U. S. Army, formerly assistant commandant at the Medical Field Service School, Carlisle Barracks, Pa., has been appointed assistant dean of the University of Pittsburgh School of Medicine.

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Lt. Comdr. Thomas Sharkey, Dayton, received several broken ribs and severe lacerations in an automobile accident near Blythe, Calif., while en route from the Naval Base Hospital, San Diego, to Dayton. Dr. Sharkey returned to this country some time ago following an illness in the South Pacific. After returning to active service at San Francisco, he became ill and was taken to the San Diego naval hospital. He was taken to the army hospital at Blythe following the auto accident.

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Lt. Harlin G. Knierim, formerly of Mansfield, has been transferred from sea duty to the Norfolk Naval Hospital, Portsmouth, Va., for special training in surgery.

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During the last nine months of 1942, 3,279 battle casualties were admitted to one hospital on the lines of communication in the Middle East. The results of treatment for these cases, the mortality rate for which was 1.3 per cent, were analyzed by Lt. Col. R. K. Debenham in the British Medical Journal for August, 1943. Some of his observations and conclusions were as follows:

The good results obtained in abdominal cases, particularly in those with bowel perforation, were due to early operation. The cardinal points seem to be early operation, late evacuation, intravenous saline drip, continuous gastric suction and sulfadiazine. The worst cases of burns came from fighting in tanks. Because facilities for preliminary cleansing were not obtainable, tanning was discarded in favor of cleansing and powdering the area with sulfanilamide and dressing with petrolatum gauze. Patients traveled best with plenty of padding, and for wounds of limbs a light, well padded plaster of paris cast was definitely beneficial. In the early stages intravenous plasma or serum was considered essential. Blood transfusions were used for secondary anemia a week or ten days later. It is easy to put too much sulfanilamide powder on the burns, especially in severe cases, as sulfanilamide is readily absorbed from burned areas and gives rise to profound toxemia. Blood and plasma or serum transfusions were used for shock, for burns and during convalescence when the hemoglobin fell below 60 per cent. Gas gangrene has been rare and gas infection uncommon. No case of tetanus has been seen.

Among the "don'ts" to be observed are listed:

Don't suture wounds. Don't suture amputation stumps.

Don't amputate at the site of election; go below it.

Don't use packing except to stop hemorrhage. Don't use drainage tubing.

Don't use unpadded plasters.

Don't forget to give morphine before a long bumpy journey.

Don't forget to give plenty of fluids by mouth.

Don't forget that the ligature of a main vessel

should be prominently recorded on the field medical card and underlined.

The salient features of war surgery in the Middle East are based on the principles which have been in the process of evolution since the beginning of the war. They are summarized as follows: organized resuscitation and the use of local and general sulfanilamide; thorough immobilization; conservative surgery and wound trimming instead of wound excision; avoidance of tension around wounds and provision of a good blood supply in damaged limbs, and the necessity to adapt and improvise articles to fulfill functions for which they were not intended.

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Maj. J. R. Bell, Cleveland, reports as follows from Presque, Maine:

"It is just a year since I arrived here from Cleveland and it occurs to me that it is time to render an account. We have been building a hospital, said to be the largest, and I am quite sure the finest, in the Air Transport Command. It is now complete—353 beds—with all the fixings—including theatre, recreation halls, Red Cross, barber shop and Post Exchange. Now that we are complete and my job, chief of medicine, calls for it, I have my majority plus invaluable experience."

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In a recent A. P. dispatch from the headquarters of the Fifth Army in Italy, Hal Boyle describes the scene when a torrential rain and wind storm leveled every tent in a huge field evacuation hospital. This is quoted from his story: "One of the most active in removing the patients was Maj. Malcolm Cook of Hamilton, Ohio."

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After service in England, Maj. Paul E. Adolph, formerly of Bellevue, has been assigned to Ft. Sheridan, Illinois.

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Lt. E. R. Torrence, M.C., U. S. Navy, formerly of Troy, visited his home town recently and addressed the local Lions' Club. He was en route from Bethesda, Md., to San Diego where he will be stationed.

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Honoring the late Dr. George W. Crile, the new Army general hospital being built at Parma, Cuyahoga County, will be named Crile General Hospital. A 1700-bed institution, costing \$4,500,000, the hospital will be completed in another month.

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Capt. O. L. Coddington, of Columbus, now with an outfit on desert training, writes that he was amused at an article in the Columbus Academy Bulletin in which the author commented about the time which medical officers have to study and advance themselves in preparation for specialty boards. Points out Capt. Coddington:

"Those of us on active duty with combat field forces have little or no time for that, when we

get up at 5 A. M., stand reveille, start sick call at 6:30 A. M. and take care of 75-100 men. Follow this up with sanitary inspections, take care of administrative work, drill, calisthenics, perhaps give a lecture or two, attend battery commanders meetings, go to officers classes, etc., one doesn't have much enthusiasm left for study. Then remember you do not have electricity to study late at night. I would like to take this young physician around with me for a month and then have him revise his article. It is now seven-thirty and getting too dark to write more. Will be glad to hear from any of the fellows."

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Service men in the Southwest Pacific are getting the best of medical care, according to Maj. James Joelson who has been at his home in Cleveland after 20 months' service in Australia.

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Maj. Herman C. Smith, formerly of Cleveland, writes from overseas where he is surgeon at an airborne training center, that he saw plenty of action in the North African campaign. Some Ohio medical officers whom he has run across in Africa are Capt. Cyril Surrington, formerly of Columbus; Capt. Harold A. Lotzoff, formerly of Lima, medical officer at a prisoner-of-war camp; Capt. B. Beren, formerly of Cincinnati; and Maj. Gregory Floridis, formerly of Dayton.

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Capt. Walter J. Brown, formerly of Conneaut, writes from a Seattle APO address, indicating he is on overseas assignment. He was recently promoted to the rank of captain.

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The "Lawson News," monthly publication of the soldiers stationed at Lawson General Hospital, Atlanta, Georgia, devoted considerable space in a recent issue to a feature story about Lt. Col. Henry J. John, Cleveland, now chief of the hospital's medical service, and his hobby—wood carving. Dr. John spends much of his spare time at his hobby, and he is a past-master at it. The Officers' Club is decorated with some of his remarkable carvings—executed in most any building on the post which provides enough room for his wood mallet and assortment of chisels.

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Lt. Comdr. Roy D. Hildebrand, formerly of Newcomerstown, writes from the Naval Air Station, Clinton, Okla., as follows: "It is midnight and the bombers are roaring overhead but they are all friendly. The boys are getting their night flying. The weather is very good here for flying and there are no obstructions. You can stand on a brick and see for 500 miles. Most of us think Oklahoma is still a territory and that they should give it back to the Indians. We expect medals for 'foreign service'! Have been 'wounded' once. My riding horse insisted on walking on his hind feet and rolling over backwards. I got off the hard way and felt like taking my meals standing for a time. My language amazed the horse. This is a new station that

is growing rapidly. I am going to be proud of the wings we send from here and what they are going to do to Tojo and Hitler. I am chief of surgery and otolaryngologist for the station. Have an air-conditioned room which was an oasis during the summer. Have all types of surgical cases. No crashes in the four months I have been here. These fellows are good when we get them. My varied surgical experience has helped me carry on and I am glad for the variety of problems. The monotony is not too great when you are keeping busy thinking and planning."

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After being carried on the Navy's "missing in action" list since Aug. 13, 1942, Lt. Comdr. Malcolm L. Pratt, Bellefontaine, has now been officially listed as "killed in action." Dr. Pratt took part in the initial invasion of Guadalcanal. His son, Marine Lt. John Lester Pratt, lost his life in the Solomons fighting in January, 1943.

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Capt. Herbert F. Kesinger, formerly of McArthur, is immunization officer at the Army Air station, Greensboro, N. C.

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Dean Sollmann also got the following note from Dr. Grace Haskins, Cleveland, who is with the British Emergency Medical Service at Seacroft Emergency Hospital, Leeds, England:

"By now I am quite an old timer in a British hospital. Most of the time I've had two wards of service women. In addition, I admit patients to all wards every second day. This is a large hospital which has been converted to an emergency hospital since the onset of war. The consultants come from the Leeds Medical School, which has been best known for its surgery, probably because of Moynihan. Leeds General Infirmary is the teaching hospital for the school. There I spent the first 2½ weeks in England. Prof. Stewart, pathologist who has visited Dr. Karsner in Cleveland, is dean. The other day I was told that about half the students were women. This is a larger proportion than that in peace time."

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Lt. B. U. Howland, formerly of Wheelersburg, is at Northington General Hospital, Tuscaloosa, Ala., where he is chief urologist of the surgical service.

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Dr. James A. Doull, Cleveland, professor of Hygiene and Public Health, Western Reserve University, now senior surgeon, U. S. Public Health Service, on a lend-lease mission, recently visited the Lakeside Hospital unit in New Zealand. He writes Dean Sollmann as follows:

"As you doubtless have heard, I had an opportunity to visit the unit and speak briefly to the staff. All were eager to learn of events at home, and I did the best I could. Hamann, Hayman, Glover, Weckesser, King, Brugler, Chamberlin, Wartman, Markley, Freedman, McCally, Harper and Thornton are particularly anxious to send you their good wishes. Chambers, Hallaran and Egeberg are on detached duty. Rose and Lazzari

have recovered and are back with the unit. McGaw had a painful accident last week, losing some of his front teeth, but he is recovering nicely. Several members of the unit were not in the building at the time, including Kelly and Eichorn."

Toledo University Postgraduate Course Set for Nov. 5

The Tenth Annual Postgraduate Course of the University of Toledo will be presented at the University Auditorium, Friday, November 5. All Ohio physicians are cordially invited to attend.

The meeting this year is to be given in memory of Dr. F. W. Alter, president of the Toledo Academy of Medicine in 1923. Two excellent speakers have been obtained for the program: Dr. Lyman Weeks Crossman, New York City, and Dr. William A. Soderman, Tulane University, New Orleans. There will be three sessions, each followed by a question-and-answer period. The tentative program follows:

10:00 A.M.—"Refrigeration Anesthesia for Extremity Surgery", Dr. Crossman.

11:00 A.M. "Medical Treatment for Peptic Ulcer", Dr. Soderman.

Recess for Luncheon.

2:30 P.M. "Preservation of Traumatized and Devitalized Tissues", Dr. Crossman.

3:30 P.M. "The Protein Picture of Amebiasis", Dr. Soderman.

Recess for Dinner.

8:30 P.M. "Case Reports—Operative and Non-Operative Treatment", Dr. Crossman.

9:30 P.M. "Management of the Nephritic Patient", Dr. Soderman.

Ambulance Bodies Made Available To Hospitals By OCD

Several hundred ambulance bodies provided by the U. S. Office of Civilian Defense are being made available to communities requesting them, according to Doctor William S. Keller, Columbus, regional medical officer, OCD. The chassis to hold the bodies must be supplied locally. Hospital trustees may wish to endorse purchase of the chassis when the matter is laid before them, Dr. Keller points out. Otherwise fraternal, civic and other organizations, as well as grateful patients, may be more than glad to contribute the chassis. The securing of one or more of these ambulance bodies will enable hospitals to release patients more promptly, according to Dr. Keller.

Hospital administrators and others interested in having these ambulance bodies made available for their use are urged to get in touch with Dr. Keller at the U. S. Office of Civilian Defense, Medical Science Building, Columbus 8, Ohio. His telephone number is MAin 6371, Columbus.

Review of Voluntary Medical Plans and Conclusions As To Their Need and Application, Especially in Rural Areas

AN interesting report, "pointing out some of the major facts, assumptions and basic principles regarding voluntary health insurance plans under different types of sponsorship," which was prepared by Prof. A. R. Mangus, Columbus, has been published by the Department of Rural Economics and Rural Sociology, Ohio State University and the Ohio Agricultural Experiment Station.

Although, as Mr. Mangus states, the report "has not been aimed at full appraisals nor at complete descriptions of plans now in operation," it does present some vital basic data for those seeking a general knowledge of voluntary health plans.

There are those who will disagree with some of the assumptions and conclusions set forth in the report. Some of these conflict with the present thinking of the majority of the medical profession and are not in accord with the expressed policies of medical organizations on the social and economic aspects of broadening the coverage of health and medical services.

Nevertheless, the Mangus report is a challenge to the medical profession. It reveals the attitude of a substantial group of citizens toward the question. Since it comes at a time when there is a real threat to establish a compulsory system of health and medical services, the report takes on added significance and importance. In brief, it says to the medical profession: There are a lot of people who are ready and willing to cooperate with the medical profession in working out suitable voluntary health and medical service plans; action should be taken now; if the matter is ignored, somebody else, maybe the government, will step in and do the job.

Following is an abstract of Prof. Mangus's report—enough pertinent excerpts to stimulating thinking and action, it is hoped, on the part of individual physicians and medical societies—no attempt having been made to present in detail his review of plans sponsored by medical societies, private groups of physicians, consumer groups, government agencies, hospital associations, or private insurance companies:

* * *

"The requirements for waging war and the uncertainties as to what lies ahead in the post-war world has created a very great interest in various plans for social security. New methods designed to minimize the risks that people have to face during their lives are now being tried out in many places and with many sponsors. Such measures may be taken through federal, state, or local government and may be compulsory or

they may be taken through voluntary associations and cooperative enterprises.

"One of the major burdens which falls upon a family is that of medical, dental, and hospital care. There are few needs so great, so widespread, and yet so costly for the average family by its own unaided effort to supply. Herein lies one of the greatest challenges to action that faces the American people and their leaders today.

"The situation now confronting Americans with respect to health and medical care is one in which methods of diagnosis and treatment have advanced far ahead of methods of organization, finance, distribution, preventive measures, and education of the lay public.

"While methods of diagnosis and treatment have had a long and rapid development, newer methods of organizing and distributing health services are just now in an experimental stage and this is doubly true so far as rural areas are concerned.

"One of the most important social discoveries pertaining to medical care is that the principle of insurance can be applied here. Recognition of this important social fact has led to experimentation with various methods of spreading the risks and sharing the costs of medical and hospital care through group health plans. While there has been much controversy about different methods of organizing and administering group health plans, a large number of valuable experiments along this line are now underway and acceptable principles and methods of procedure are being devised.

"There are many advocates of better distribution of medical care who feel that compulsory health insurance administered under the auspices of government is the only way to assure every citizen access to needed services. Others are convinced that the old competitive method of private medical practice is becoming inadequate to meet present needs but feel that those needs can be met in large part through voluntary health insurance organizations.

"Many such voluntary organizations are now in operation some operating over wide areas. They have been organized largely for the benefit of various groups of nonfarm workers and their dependents, and for special groups of farm families but now there are similar plans being initiated for the benefit of all farm families in given health service areas in several states.

"The best of these plans aim not only to organize payments but also to improve the quality of available health services and to place greater emphasis on preventive rather than strictly cur-

ative practices. They are, therefore, much more than merely methods by which patients pay, and doctors collect their bills.

"Spreading the costs of health services among large numbers of people and over extended periods of time represents a great improvement in financing but the most outstanding examples of voluntary health insurance organizations also serve social, psychological, and educational objectives. They promote among their beneficiaries positive attitudes toward health as a major asset to the individual and his family. They encourage preventive measures and early diagnosis and treatment of disease. They give their beneficiaries a sense of security and eliminate much of the anxiety of the family of limited means about the possible cost of unpredictable illness. They increase the patient's confidence in his doctor, and enhance the selection of competent physicians. They often centralize professional personnel and diagnostic and therapeutic equipment in medical centers and encourage group practice and consultation on the part of physicians, and finally they develop cooperative and democratic attitudes among beneficiaries and between beneficiaries and professional medical personnel.

"The basic facts, assumptions, and principles of direct concern to those seeking a general knowledge of group health plans may now be summarized.

"1. There has developed in the United States a very wide gap between accepted knowledge of effective methods of diagnosis and treatment of illness and what the average person actually receives in the way of medical care.

"2. The barriers to good medical care for all families have been largely the financial costs of such care together with lack of information on the part of the public generally as to what constitutes good medical care and the need for it.

"3. In any given community a very large part of the sickness bill for any particular year must, under prevailing conditions, be borne by the comparatively small proportion of families whose members suffer serious illnesses during that year. Many illnesses go untreated because of the anticipated costs involved.

"4. The family costs of medical care can be kept within reasonable bounds and health education promoted through group or community action. The technique for such action is found in a form of social insurance, known as voluntary health insurance, or group health.

"5. From the preceding principle it follows that persons who want good medical care for themselves and for their neighbors should band together to get as a group what may be impossible for each as an individual by his own unaided effort to obtain.

"6. It is not possible for the individual or family to predict the amount of illness which it will

suffer in any given year or the amount of money that will be required to pay for medical care, but the incidence and costs of illness of various kinds among a large, representative group of persons, or in a whole community, can be forecast with considerable accuracy and budgeted for, in advance.

"7. Voluntary health insurance is based on the principle of pooling the risks of illness, and of spreading the costs of medical care over a large group of families by paying doctor's bills from a common fund to which all members of the group make fixed and regular payments. The pooled fund may or may not be supplemented by contributions from other sources.

"8. The risk of illness, that is, the chance of sickness, like the risk of death, is not the same for each individual but varies with age, sex, family stock, occupation, and other environmental conditions.

"9. All self-supporting voluntary health insurance organizations try to maintain financial solvency and to preserve the quality of service extended, by the adoption of enrollment policies which will insure a proper distribution of risks among members or subscribers. Attempts are made to balance each 'bad risk' with a 'good risk,' so that in any one month or year those more advantaged from the point of view of health will help pay the sickness costs of the less favored families. In other words, those with low illness rates in any given year help pay the sickness bills of those with high illness rates for that year.

"10. A major weakness of voluntary health insurance plans is found in the difficulties which they have in obtaining and keeping a proper distribution of risks among the members or subscribers who use their services. Those who have, or who believe they have, little or no requirement for medical care fail to participate, or they drop their payments after a year or so. The result is a situation where participants consist of disproportionately large numbers of people who require an excessive amount of medical care. This situation causes a breakdown in the insurance principal which presupposes that in any given month or year a substantial proportion of subscribers will require less service than they have paid for, to make up for those who receive more service than they have paid for.

"11. Another weakness of most voluntary health insurance is that it offers only a limited solution to the problem of the distribution of medical care since many low-income families cannot pay the family costs of an adequate health insurance program, even with a proper distribution of risks among subscribers.

"12. There are many who feel that the weaknesses of voluntary health insurance plans cannot be overcome and that compulsion will be required to obtain the widest practicable cover-



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REGARDLESS of what any physician may be interested in, of how general or how limited his interest, and whether in military or civilian practice, there will be at Cincinnati a program to challenge that interest and make it worth-while for him to attend.

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age of the population and to maintain a proper distribution of risks.

"13. There appears to be a growing acceptance of the propositions that good medical care should be made available to all families on a self-respecting basis and that the cost of good medical care for those who cannot afford to pay for it, even as members of group health organizations, is a proper charge against the community as a whole, as represented by government.

"14. Government sponsorship of voluntary health insurance and lump sum grants-in-aid to local health associations is believed to be a sounder procedure and more democratic than compulsory health insurance. Such grants-in-aid provide a partial equalization of the costs of medical care and leaves actual operation and administration in local hands.

"15. It has not yet been shown that voluntary health insurance without subsidy has the possibility of reaching more than a fraction of those families who need its protection.

"16. There is wide agreement on the following principles relating to a community health program:

"a. It should be broad in scope, making provisions for all the health services which modern knowledge and skill can provide, to assure healthful living.

"b. It should include all who need assistance and protection against the costs of medical care.

"c. It should emphasize prevention, and early diagnosis and treatment of illness and disability.

"d. It should aim at continued improvement in the quality of medical services as well as at organization of methods of payment for services.

"e. It should emphasize the social and psychological values of group action for healthy living as well as financial and medical advantages.

"f. It should serve as a major factor in a program of health education for adults.

"g. It should provide reasonable payments to professional personnel and it should avoid any implication of charity in the doctor-patient relationship.

"h. It should be so organized that maintenance of standards of good medical practice are at all times under the control of the medical profession, but since funds paid in to a health insurance pool by participating families are public funds, they should be controlled by a board of trustees selected by the contributors.

"17. There is need for continuation and expansion of voluntary health insurance plans for rural people not only to meet immediate needs in local areas but especially to establish guide lines for rural health service planning on a broad scale. No actuary, but only actual operative experience can provide the essential facts that must be available for use in formulating sound policies and programs.

"18. Now is an opportune time to initiate group health plans for rural people for the following reasons:

"a. The importance of maintaining the health and physical fitness of rural people and of reducing the working time lost because of illness and disabilities can hardly be overestimated.

"b. There is need for arrangements to insure the most effective use of limited health resources found in rural areas, resources further depleted by extensive recruitment of professional personnel for the armed forces.

"c. Plans need to be developed which will carry over into the post-war period with its peculiar needs and adjustments.

"d. Voluntary health insurance should at least be given a fair chance to show what it can achieve before it becomes necessary to inaugurate a program of compulsory health insurance under government auspices.

"In the midst of total war no responsible person will minimize the importance of health both among civilians and among the military forces. The urgent needs of war do not stand alone, however, for there is increasing interest in the pattern of living that will prevail in the post-war period. Health security is coming to be accepted as a major goal for America. Lip service and deferred action with respect to that goal will not be satisfactory to forward looking people. It is likely that careful planning now will avoid the necessity for 'hasty' action in the future."

American Board Examinations

The next written examination and review of case histories (Part I) for candidates desiring certification by the American Board of Obstetrics and Gynecology will be held in various cities of the United States and by special arrangements at Army and Navy stations, on Saturday, February 12, 1944, at 2 P. M. Candidates who successfully pass the Part I examination proceed automatically to the Part II examination held later in the year. Applications for this year's examinations must be in the office of the secretary by November 15, 1943. For further information and application blanks, address Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh 6, Pa.

Third Annual Schering Award

The third nation-wide competition for the Schering Award is now open. Three major prizes of a total value of \$1000 will be awarded to undergraduate medical students who submit the best critical dissertations on the subject "Hormones and Cancer." All manuscripts must be submitted no later than January 15, 1944. Communications should be addressed to "The Interne," 7 East 42nd Street, New York 17, N. Y.

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In Memoriam

Rose Amanda Ralston Ackley, M.D., Warren; Cleveland University of Medicine and Surgery, 1896; aged 83; member of the Ohio State Medical Association and the American Medical Association; died September 25. Dr. Ackley retired several years ago after having practiced in Warren since 1900. She was previously located in Cleveland. Two brothers and a sister survive.

Victor Biddle, M.D., Steubenville; College of Physicians and Surgeons, Baltimore, Md., 1909; aged 68; member of the Ohio State Medical Association and the American Medical Association; died October 4. Dr. Biddle practiced in Steubenville for 28 years, and was a former president of the Jefferson County Medical Society. He served with the 83rd Division in France during World War I. His widow and a daughter survive.

John Meeks Firmin, M.D., Findlay; University of Wooster Medical Department, Cleveland, 1897; aged 71; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 4. Dr. Firmin practiced in Findlay for 42 years, and for 15 years was chief of staff of Findlay Hospital. He had retired in September, 1942 because of ill health. During World War I, Dr. Firmin was a major in the Medical Corps of the U. S. Army and was chief of surgical service at a base hospital in France. He was a member of the Masonic Order and the Elks Lodge. Surviving are his widow and two sons, one of whom is Dr. Richard Firmin, Zanesfield, and two brothers.

Edwin Wakefield Grubb, M.D., Akron; Cleveland-Pulte Medical School, 1903; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died September 23. Dr. Grubb had practiced in Akron for 30 years. He was a member of the Masonic Lodge. His widow, a daughter, a son, two sisters and a brother survive.

George Henry Lewis, M.D., Lakewood; University of Michigan Medical School, 1905; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died September 28. Dr. Lewis practiced in downtown Cleveland from 1905 until 1921, when he located in Lakewood. He was a member of Phi Rho Sigma. His widow, a daughter and a son survive.

Hiram Hulbert Metcalfe, M.D., Shelby; Cleveland Medical College, Homeopathic, 1897; aged 76; died October 7. A native of Canada, Dr. Metcalfe practiced in Shelby for 38 years. He was chief of staff of the Shelby Memorial Hospital. Dr. Metcalfe had been a member of the Methodist Church for 57 years. Surviving are his widow and a daughter.

Samuel Fleming Paul, M.D., Steubenville; Ohio State University College of Medicine, 1911; aged 65; member of the Ohio State Medical Association and the American Medical Association; died September 18. A practicing physician in Steubenville for 32 years, Dr. Paul had served as a member of the city board of health. He was a member of the Methodist Church, the Masonic Lodge, Modern Woodmen, Maccabees, Red Men, Ben Hur, Royal Neighbors and an honorary member of the Iron and Steel Workers Union. Surviving are his widow, two sons, three sisters and three brothers.

Lester Eugene Siemon, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1896; aged 76; died October 4. President of the Ohio College of Chiropractic since 1916, Dr. Siemon practiced in Cleveland for 47 years. He was a member of the staff of Huron Road Hospital, and was formerly on the staff of City and Maternity Hospitals. Dr. Siemon was appointed a member of the State Medical Board by Governor Judson Harmon in 1911 and was reappointed by Governor Vic Donahey, serving as board presi-

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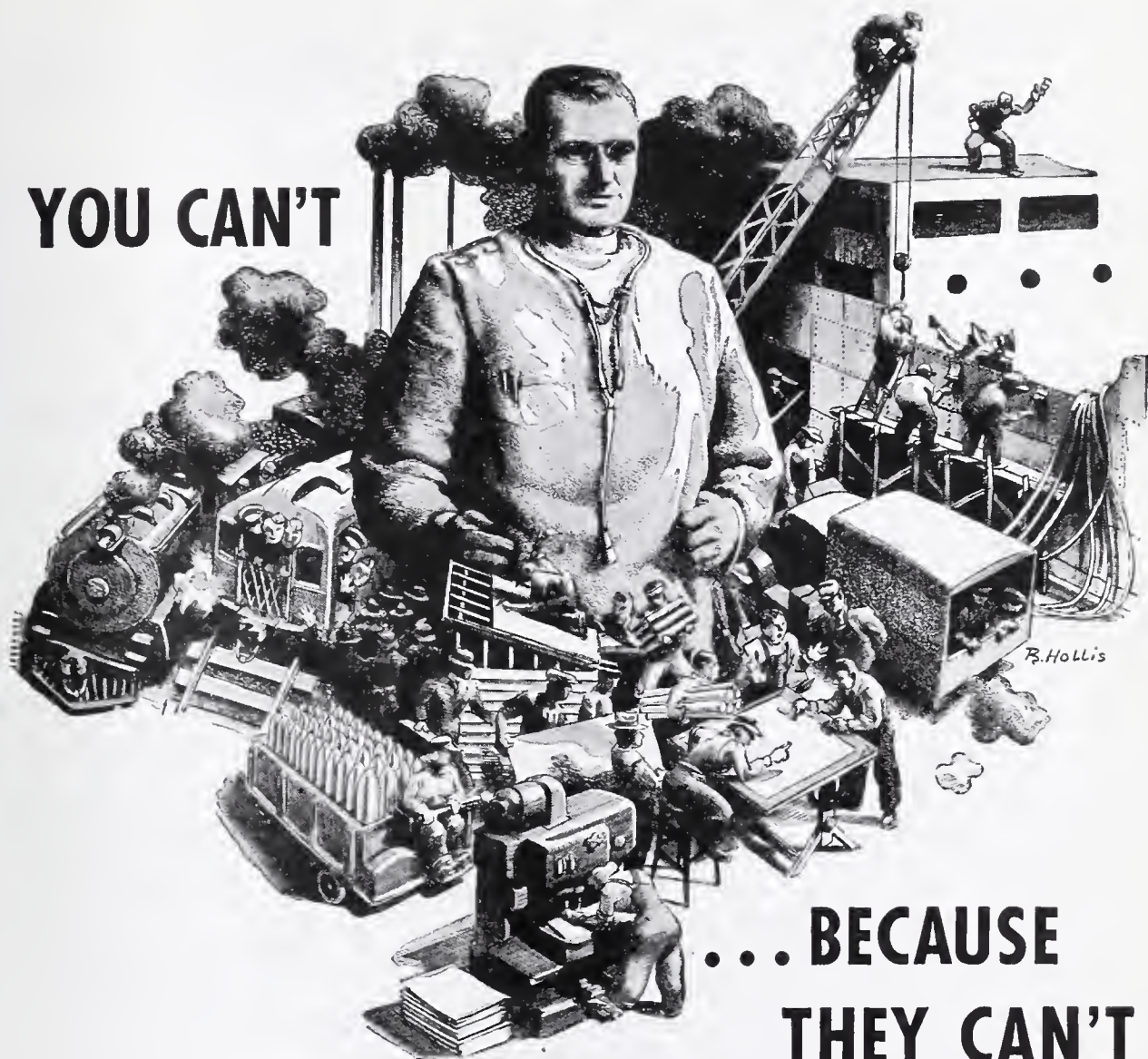
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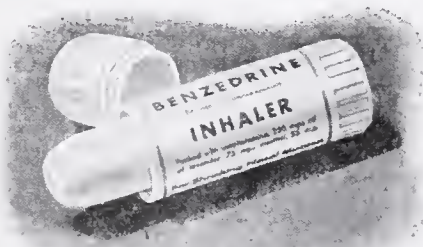




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dent. In 1924 he was president of the American Institute of Homeopathy. Dr. Siemon was a Mason. His widow, a daughter and a sister survive.

Otis Franklin Simonds, M.D., Cleveland; Bowdoin Medical School, Brunswick-Portland, Me., 1909; aged 61; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American Academy of Ophthalmology and Otolaryngology; died September 26. Dr. Simonds was a member of the staff of St. Luke's Hospital. He practiced in Cleveland for 24 years. Dr. Simonds was a member of the Episcopal Church, Rotary Club and Delta Upsilon. Surviving are his widow, two sons and a sister.

Charles L. Thompson, M.D., York Center; Ohio Medical University, Columbus, 1896; aged 72; died October 5. Dr. Thompson had practiced in York Center and Hardin County for nearly 50 years, and during the last 10 years had also maintained an office in Mt. Victory. Active in Union County Republican politics, Dr. Thompson had been a member of the county board of elections for the past 12 years. He had also been a member and president of the York Center school board and was active in all community undertakings. Dr. Thompson was a member of the Methodist Church and the Masonic Lodge. Surviving are his widow, a daughter and a son, Dr. C. H. Thompson, West Mansfield.

Seven Firms Merge To Form New Company, Wyeth, Inc.

The formation of Wyeth, Incorporated, through the grouping of seven companies now operating in the pharmaceutical, biological and nutritional fields has been announced by the American Home Products Corporation of which the new company will be a wholly-owned subsidiary.

The companies which will comprise Wyeth, Incorporated, include: John Wyeth and Brother, Inc., Philadelphia; S.M.A. Corporation, Chicago and Mason, Mich.; Reichel Laboratories, Inc., Kimberton and West Chester, Pa.; Gilliland Laboratories, Inc., Marietta, Pa.; Petrogalar Laboratories, Inc., Chicago; General Biochemicals, Inc., Chagrin Falls, Ohio, and the Bovine Company, Chicago.

Harry S. Howard, formerly president of the American Home Products Corporation, will head Wyeth, Incorporated, as president. Frank F. Law, president of John Wyeth and Brother, Inc., will serve as vice president in charge of the pharmaceutical division; Clyde C. Marshall, chairman of the S.M.A. Corporation and president of Petrogalar, and the Bovine Company, as vice president in charge of the nutritional division; and Dr. John Reichel, president of Reichel Laboratories, as vice president in charge of the biological division.

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Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)

ADAMS

A film entitled "Caudal Anaesthesia in Obstetrics," was shown through the courtesy of Eli Lilly and Company, at a meeting of the Adams County Medical Society, October 20, at West Union. Dr. M. B. Denham, Maysville, Ky., spoke on "The Treatment of Genito-Urinary Infections with Sulpha Drugs." Members of the society were dinner guests of their West Union colleagues.—H. L. Sproull, M.D., secretary.

CLINTON

Dr. Robert Conard was the speaker at a meeting of the Clinton County Medical Society, October 5, at the General Denver Hotel, Wilmington.—News clipping.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during October:

Oct. 5—"Recent Advances in Aviation Medicine," Dr. Eugene B. Ferris, with discussion by Dr. M. A. Blankenhorn.

Oct. 19—"Recent Advances in Chemo-Therapy with Reference to the Sulpha Drugs and Penicillin," Dr. Hobart A. Reimann, Magee professor of the practice of medicine and clinical medicine, Jefferson Medical College, Philadelphia.—Bulletin.

Second District

(COUNCILOR: H. C. MESSENGER, M.D., XENIA)

MIAMI

Dr. Lynn Baker, Dayton, spoke on "Diseases of the Chest," at a meeting of the Miami County Medical Society, October 1, at the Piqua Hospital.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Movies, still pictures and exhibits were included in the program presented by three Army Air Force officers at a meeting of the Montgomery County Medical Society, October 13, at Dayton. Lt. Col. W. Randolph Lovelace, M.C., spoke on "Aviation Medical Problems in Various Theatres." Major F. G. Hall, A.C., discussed "Present Status of Research in Aviation Medicine in the Aero-Medical Laboratory," Major A. P. Gagge, A.C., gave a report on a recent overseas trip to England and Africa.—Bulletin.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

Approximately 175 members attended a special meeting of the Toledo Academy of Medicine, September 30, to hear an explanation of the Wagner-Murray-Dingell Bill. Hon. Robert Dunn, Toledo attorney, spoke on the legal phases and the broad implications of the bill. George H. Saville, Columbus, assistant executive secretary of the Ohio State Medical Association, explained the medical and hospitalization provisions. Dr. Edward J. McCormick, Toledo, past-president of the State Association and member of the Council on Medical Service and Public Relations of the American Medical Association, was the discussant.

The following programs were presented by the Academy during October:

Oct. 1—General Meeting. "Common Blood Dyscrasias," Dr. Foster Myers.

Oct. 8—Section of Pathology, Experimental Medicine and Bacteriology. "A Study of Recent Advances in the Anti-Bacterial Substance Produced by Micro-Organisms (Penicillin, etc.)," Dr. Hiomo Nakamura.

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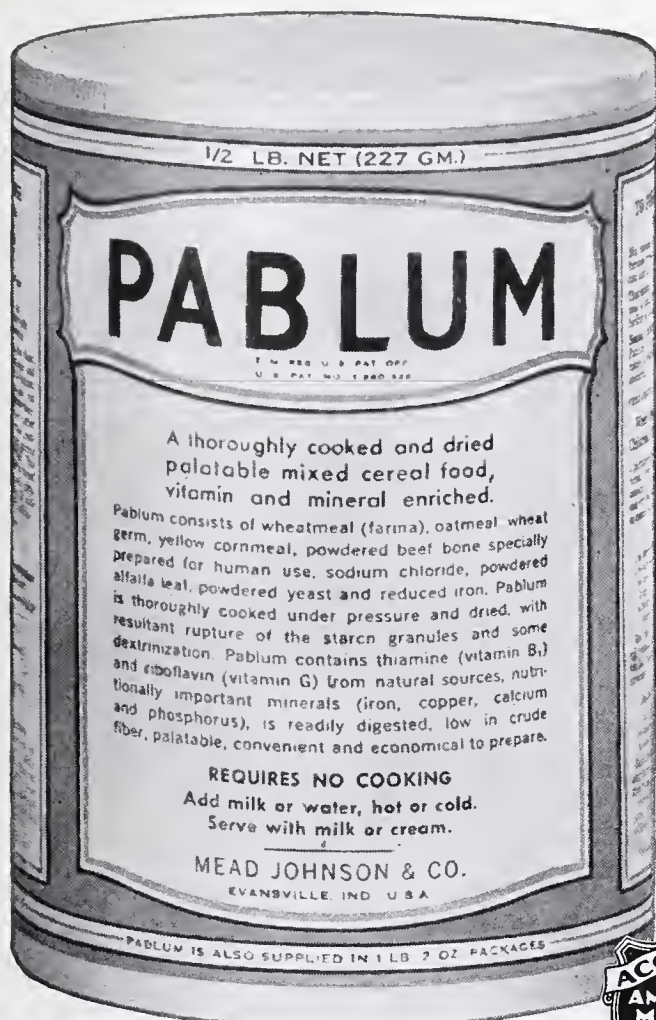
Physicians who have recently completed their internships, or physicians, with experience, desiring to change locations are requested to file their names with the State Headquarters Office, Ohio State Medical Association, 1005 Hartman Theater Building, Columbus, Ohio.

Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

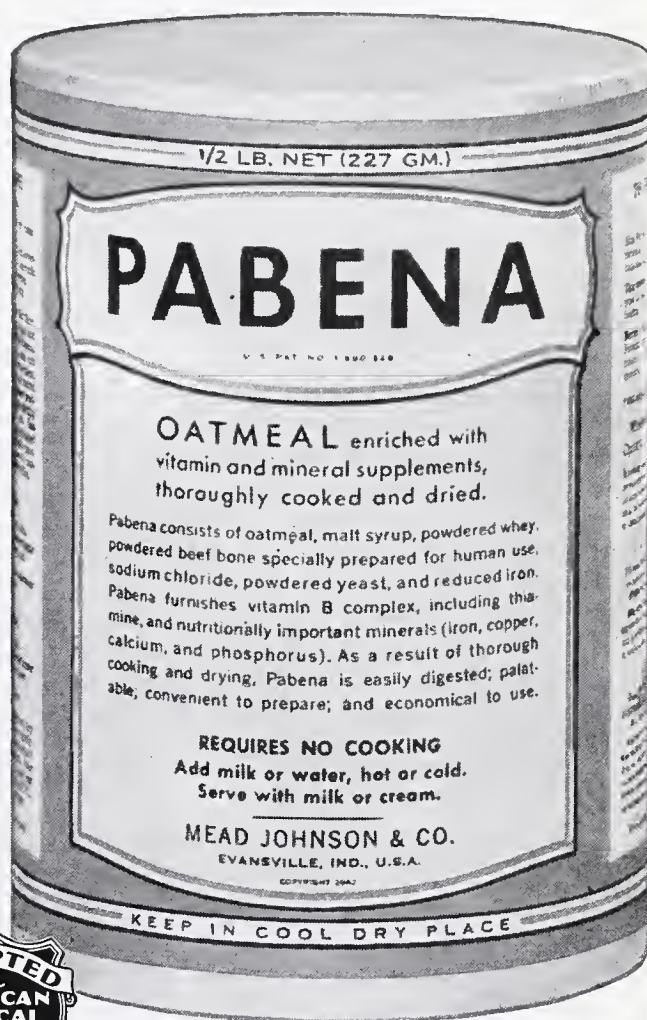
If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

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Oct 15—Medical Section. "A Consideration of Ruptured and Protruded Vertebral Discs," Dr. E. P. Gillette and medical and X-ray associates.

Oct. 22—Surgical Section. Meeting in charge of Dr. J. A. Magoun.

Oct. 29—Eye, Ear, Nose and Throat Section. "Treatment of Squint in Children," Dr. S. H. Patterson; "The S-type Infection," Dr. L. R. Effler.—Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following program was presented at a joint meeting of the Experimental Medicine Section of the Cleveland Academy of Medicine and the Cleveland Section of the Society for Experimental Biology and Medicine, October 8: "Metabolic Effects of Massive Plasma Transfusions in Case of 'Nephrosis'," Drs. E. Eckel, G. Bidder, A. Weisberger and M. Miller; "Methods of Isolation of Morphological Constituents of the Liver Cell", Dr. Normand L. Hoerr; "Experimental Production of Hyperlipemia," Dr. Walter Heymann and Edward C. Clark.—Bulletin.

LAKE

The Lake County Medical Society met in regular monthly session, Tuesday evening, October 12, at the Lake County Memorial Hospital, Painesville. Reports were made by the following chairmen of standing committees: Dr. J. V. Winans, legislation; Dr. V. N. Marsh, war participation; Dr. George Barnett, industrial health, and Dr. M. G. Carmody, program. The guest speaker was Dr. C. H. Verovitz, Cleveland, who gave a very technical address on "Varicose Veins and Varicose Ulcers," with complete modern therapy. A general discussion followed. Dr. E. P. McNamee, Cleveland, Fifth District Councilor for the Ohio State Medical Association, spoke on the Wagner Bill and other current medical problems. It was one of the most interesting meet-

ings of the year. A majority of the members was present.—E. Stanton Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

Dr. Robert F. Thaw, Akron, spoke on "Eye, Ear, Nose and Throat Conditions of Interest to the General Practitioner," at a meeting of the Portage County Medical Society, October 7, at the Robinson Memorial Hospital, Ravenna.—Emily Widdecombe, M.D., secretary.

COLUMBIANA

The fall and winter program was opened by the Columbiana County Medical Society and the Woman's Auxiliary, September 14, when a joint meeting was held at the American Legion Home, Lisbon. Dr. John A. Fraser, president of the society, presided over the program, which included an address by Rev. W. S. Beitler, Wells-ville, on "Clerics and Medics", and a talk on organization activities and problems by Dr. R. L. Rutledge, Sixth District Councilor for the Ohio State Medical Association.—News clipping.

MAHONING

Dr. John W. Wilce, Columbus, professor of clinical medicine, Ohio State University College of Medicine and director of the University Health Service, spoke on "The Heart in Athletics, Industrial and Military Correlations", at a meeting of the Mahoning County Medical Society, October 19, at the Youngstown Club.—Bulletin.

SUMMIT

"Prepaid Medical Care", was the topic discussed by Dr. Harry V. Paryzek, president, Cleveland Medical Service Association and a former president of the Ohio State Medical Association, at a meeting of the Summit County Medical Society, October 5, at the Mayflower Hotel, Akron.—Bulletin.

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Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MUSKINGUM

Dr. George C. Malley gave an address on "Infantile Paralysis and the Kenny Method of Treatment", at a meeting of the Muskingum County Academy of Medicine, October 6, at the University Club, Zanesville. The Kenny Method was demonstrated by Mrs. George Selsam.—Beatrice T. Hagen, M. D., secretary.

Tenth District

(COUNCILOR: GEO. T. HARDING, M.D., COLUMBUS)

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during October:

Oct. 4—"Feeding Problems of Infants and Young Children",—A Symposium: "Breast Feeding", Dr. Miner Seymour; "Proprietary Milks", Dr. Elizabeth Barnes; "Adjunct Feedings, Cereal, Vegetables, Vitamins", Dr. O. W. Hosterman; "Cow's Milk Formulae", Dr. Dorothy Falkenstein; "Feeding Problems of Pre-School Children", Dr. M. L. Ainsworth.

Oct. 18—"Relief for Infirmities and Disabilities of the Aged",—A Symposium on Geriatrics: "Problems of Diet and Alimentation", Dr. Carl A. Hyer; "Senile Psychoses and Cerebral Arteriosclerosis", Dr. J. J. Alpers; "Cardiac Disturbances and Peripheral Vascular Diseases", Dr. Donald L. Mahanna; "Pneumonia, Asthma and Pulmonary Malignancies", Dr. S. A. Hatfield; "Management of Urinary Difficulties", Dr. Albert B. Landrum.—Bulletin.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

Dr. Michael C. Kolczun spoke on "Knee Injuries", at a meeting of the Lorain County Medical Society, October 12, at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

RICHLAND

Dr. John Tucker, Cleveland, spoke on "The Story of Penicillin", at a dinner meeting of the Richland County Medical Society, October 21, at the Shelby Country Club. There was a golf tournament in the afternoon.—John F. McHugh, M.D., secretary.

Doctor: Have you written your Congressman to send you a copy of the Wagner-Murray-Dingell Bill (S. 1161)? Have you let him know what you think of that bill?

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Asthma is generally traceable to some allergenic excitant present in the patient's diet or environment. Hence, determination of the causative factors is a prime requisite for elimination of or desensitization to the specific offenders.

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Woman's Auxiliary News

BELMONT

Due to gasoline rationing, the Woman's Auxiliary to the Belmont County Medical Society has a meeting only when the County Society meets. The first meeting of the year was early in March. After a short business session, at which \$20 was donated to the Red Cross, members joined with their husbands for a dinner-session.

The next meeting was on the afternoon of September 2 at the home of Mrs. R. H. Wilson, Martins Ferry. In the evening there was a joint dinner session with the members of the Belmont County Medical Society and local dentists and druggists. A donation was made by the society and the auxiliary to the Chinese Children's Fund. Each group contributed sufficient funds to care for a Chinese orphan for a year. The Auxiliary also donated a floor lamp for the U. S. Army Fletcher General Hospital at Cambridge. Dr. C. C. Sherburne, Columbus, President of the Ohio State Medical Association, gave an address on "The Trend of Medicine", and Hon. Earl R. Lewis, 18th District congressman, spoke on "Washington Today". Dr. Carl A Lincke, Carrollton, Councilor for the Seventh District, and Mrs. Lincke, were among the guests.

A bridge luncheon is being planned for December.

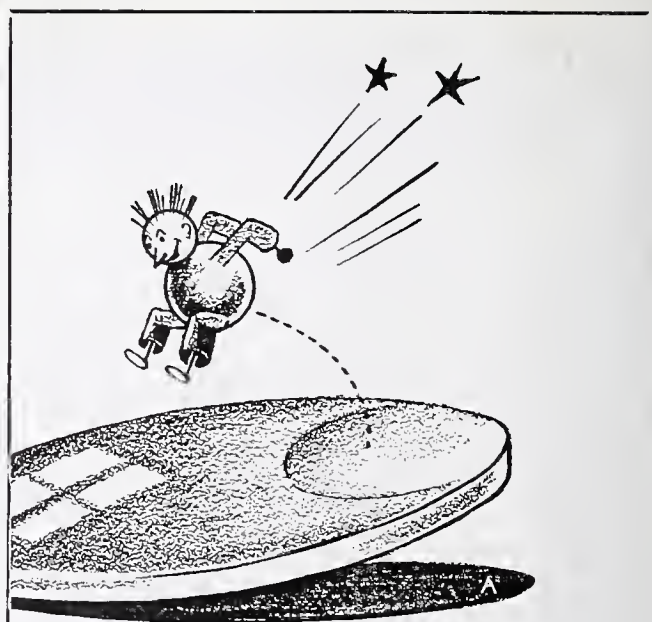
CUYAHOGA

Activities of the Woman's Auxiliary to the Cleveland Academy of Medicine have been concentrated on work for the Red Cross since the beginning of the war. Mrs. Charles Sevan heads a group which meets at the Academy every Tuesday morning. She has several assistants. The physician's wives take home yarn and return the finished articles. Since the beginning of the project, 768 articles have been completed, also 36 afghans. The Auxiliary has contributed to one of the Red Cross drives and to the purchase of 100 comfort bags. There was a luncheon meeting with a speaker in the Spring. Support of the Red Cross is expected to continue this Fall.

LUCAS

A panel discussion of "Juvenile Delinquency in Lucas County", was held at a luncheon meeting of the Woman's Auxiliary to the Academy of Medicine of Toledo and Lucas County, October 12, at the Toledo Woman's Club. Participants were: Virgil E. Cramer, director of pupil personnel, Toledo Public Schools; L. Wallace Hoffman, chief referee, Lucas County Juvenile Court; and Gordon Jefferies, clerk of courts and former welfare director of the city of Toledo. A report was given by Mrs. Murray Goodrich.

The Auxiliary plans to meet monthly on the second Tuesday of each month, except Decem-



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ber. They will be luncheon meetings at one o'clock, followed by a program.

Board members of the Auxiliary are: Mrs. W. W. Beck, president; Mrs. Frank Maxwell, president-elect; Mrs. F. W. Morley, retiring president; Mrs. Paul M. Holmes, vice-president; Mrs. John E. Minns, corresponding secretary; Mrs. A. A. Brindley, recording secretary; Mrs. Frank B. Ficklin, treasurer; Mrs. Newton W. Kaiser, assistant treasurer; and the following committee chairmen: Mrs. C. E. Price, social; Mrs. O. W. Burkholder, telephone; Mrs. E. Benj. Gillette, library; Mrs. R. B. Curl, *Hygeia*; Mrs. Boni E. Petcoff, program; Mrs. H. H. Stevens, finance; Mrs. Earl W. Huffer, legislation; Mrs. C. A. Phillips, membership; Mrs. C. J. A. Paule, publicity.

ROSS

Combined business and social meetings of the Woman's Auxiliary to the Ross County Academy of Medicine are held monthly, the business meeting always being preceded by a dinner. At several meetings assistance was given the Chillicothe Hospital by cutting and hemming dresser scarfs and bed tray covers. Two large wool afghans were made and donated to the Red Cross. All yarn was furnished by Auxiliary members. Every Monday is Medical Auxiliary Day at the Red Cross. Members report at 10 o'clock in the morning take their lunch and sew on whatever current quota the Red Cross is filling until 4 o'clock in the afternoon. In addition to the sewing program, lectures and movies of civic interest are provided by the program committee.

At a meeting of the Auxiliary, September 2, at Chillicothe, Mrs. G. W. Cooper, the president, appointed the following committee chairmen: Mrs. M. D. Scholl, publicity; Mrs. L. T. Franklin, program; Mrs. L. E. Hoyt, public relations; Mrs. W. C. Breth, membership; Mrs. O. L. Iden, legislation, assisted by Mrs. Glenn Nisley and Mrs. F. W. Nusbaum.

Fourteen of the 24 members of the Auxiliary were present at a meeting October 7. There were two guests—Mrs. C. A. Price, Cincinnati, whose husband addressed a meeting of the Academy; and Miss Martha Sproat, the speaker. Her address described a trip around the world taken in 1936-37. It was particularly interesting because of her description of the present theatres of war.

A new project for the year is the making of surgical bandages from material reclaimed from recapped tires. Members wash the material at home, return it cleaned and pressed to the Red Cross rooms. Every Tuesday from 10 until 4 they make binders and bandages. Thirty-three have been completed to date.

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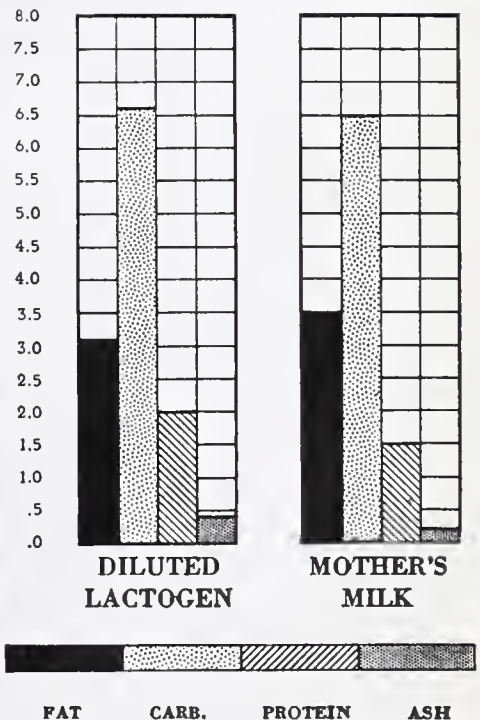
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Clinical Pediatrics, p. 156.



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Dr. Zinninger Named Acting Director of Surgery

The Board of Trustees of the University of Cincinnati recently approved the appointment of Dr. Max M. Zinninger, as acting director of the department of surgery and acting chief of the surgical service of the Cincinnati General Hospital.

More than \$354,000 in gifts to the University was reported by President Walters. The gifts included:

Ten thousand dollars from Anheuser-Busch, Inc., for research in nutrition under the direction of Dr. Tom D. Spies, associate professor of internal medicine; \$1,400 from Best Foods, Inc., for a fellowship in 1943-44 in the department of leather research; \$1,200 from Christ Hospital for the Christ Hospital fellowship in biological chemistry for 1943-44; \$3,200 from Mrs. Arthur Espy for the Espy fund in diabetes.

Five thousand dollars from Gelatin Products Company for research in nutrition under the direction of Dr. Spies; \$5,000 from Hoffmann-La Roche, Inc., for research in nutrition under the direction of Dr. Spies; \$1,200 from Lederle Laboratories, Inc., for research in biophysics; \$1,000 from Lederle Laboratories, Inc., for experimental work in pneumonia under the direction of Dr. Milan Logan, professor of biological chemistry; \$1,000 from Lederle Laboratories, Inc., for experimental work in broncho-pneumonia under the direction of Dr. M. A. Blankenhorn, professor of medicine. \$1,200 from the William S. Merrell Company for its fellowship fund in the department of surgery; \$1,000 from the same company for research in nutrition under Dr. Spies; \$1,000 from the same company for its fellowship fund for the study of peroxide ointments.

Five thousand dollars from the National Cancer Institute for research in the department of surgery; \$5,000 from the Nutrition Foundation for research in nutrition under the direction of Dr. Spies; \$5,500 from Parke, Davis and Company for the Parke, Davis research fund in the department of psychiatry; \$1,600 from Parke, Davis and Company covering a fellowship in the department of chemical engineering; \$3,000 from Charles Pfizer and Company, Inc., for research in nutrition under the direction of Dr. Spies; \$296,773.33 from friends of the late Dr. Mont R. Reid, professor of surgery, for the Mont Rogers Reid memorial fund.

Doctor: Have you written your Congressman to send you a copy of the Wagner-Murray-Dingell Bill (S. 1161)? Have you let him know what you think of that bill?

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Fifth Painting In Series On Pioneers In Medicine To Be Unveiled

Pharmacy's role in World War II and its success in making America independent of foreign sources for supplies of vital drugs will be keynote topics at unveiling ceremonies for the fifth painting in the famed "Pioneers of American Medicine" series at Philadelphia Nov. 5, during National Pharmacy Week.

A distinguished audience of 250 pharmacists, physicians and scientists from all parts of the United States will be on hand for the event at the Barclay, which will pay tribute to William Proctor, Jr., world-famous for his work in the standardization of drugs.

The 1943 painting is entitled "The Father of American Pharmacy" and depicts Proctor (1817-1872), studying a formula for the standardization of drugs while at work with an assistant in his laboratory. The painting is one of a series produced by the artist, Cornwell for John Wyeth and Brother, Inc. Other paintings in the series, which are loaned to medical schools and medical societies, are "The Dawn of Abdominal Surgery," a tribute to Dr. Ephraim McDowell, depicting the world's first successful ovariectomy; "Beaumont and St. Martin" honoring Dr. William Beaumont, who pioneered in the study of the stomach's digestive functions; "Osler at Old Blockley,"

in honor of Sir William Osler, pioneer teacher of clinical medicine, and "Conquerors of Yellow Fever," a tribute to Drs. Walter Reed and Carlos Finley, whose work made possible construction of the Panama Canal vital wartime lifeline.

Coming Meetings

Ohio State Medical Association, Columbus, May 9-11.

American Society of Anesthetists, New York, Dec. 9.

Radiological Society of North America, Chicago, Nov. 29-Dec. 3.

Southern Medical Association, Cincinnati, Nov. 16-18.

Southern Surgical Association, New Orleans, Dec. 7-9.

Toledo University Postgraduate Day, Toledo, Nov. 5.

Regional nonprofit medical service plans will be immediately developed as community projects with the endorsement and support of the component medical societies in accordance with unanimous action of the Council of the West Virginia State Medical Association on September 30. Details of the plans and contracts will be left to each community.



From the painting by George Frederick Watts, "HOPE"

AS EVER GROWING numbers of cases yield to liver therapy, pernicious anemia emerges from among the one-time "incurables." Today, men and women who must, can face this condition with justifiable optimism—for there is hope. . .

And so the laboring physician has two allies—a proven medicinal, and the fighting spirit of his patient.

When his choice of a liver product falls upon Purified Solution of Liver, Smith-Dorsey, he may count a third ally—the dependability of the maker. For Smith-Dorsey's product comes from laboratories capably staffed . . . equipped to the most modern specifications . . . geared to the production of a strictly standardized medicinal.

In that especially critical anemia case—as in all the others—you need a product of the caliber of

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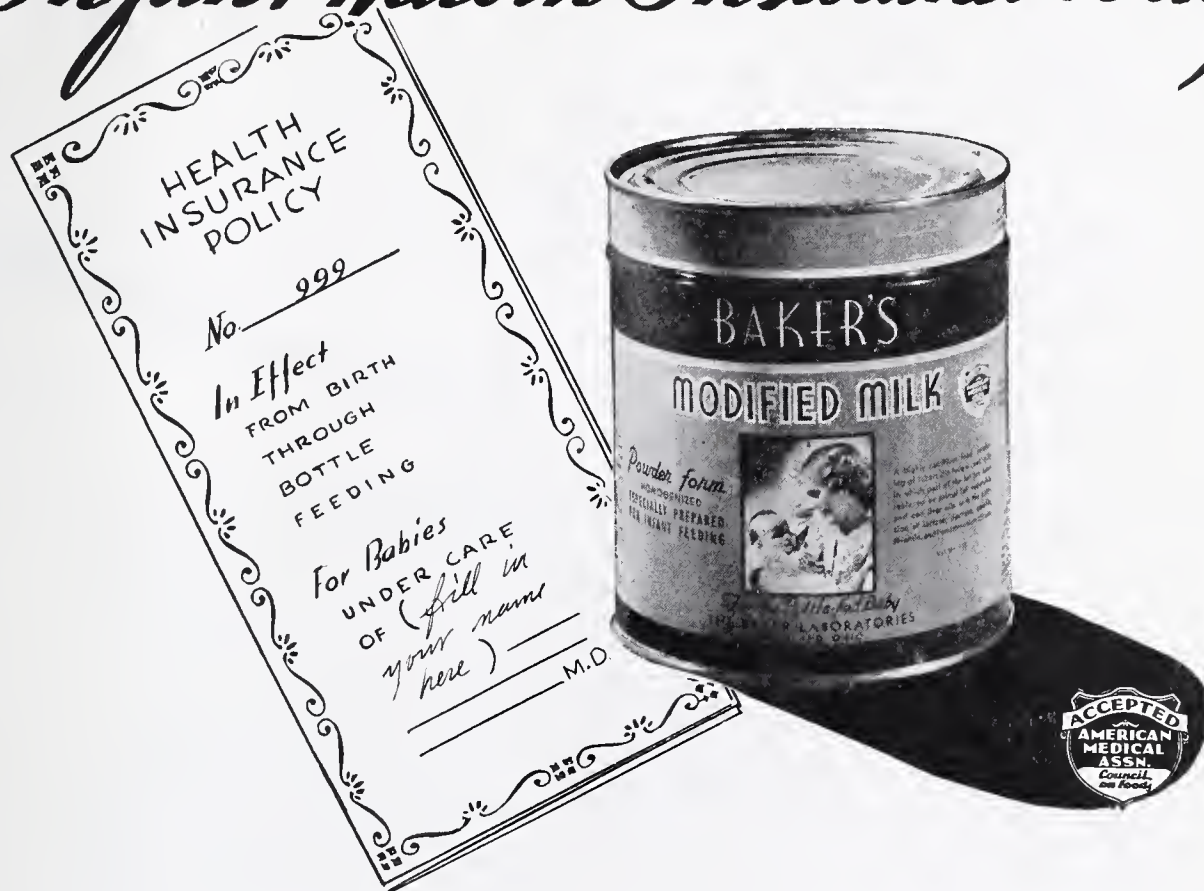
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IF you could write a policy for infant health insurance, you would certainly include some sensible feeding rules . . . You might also suggest to mothers that *one way to prevent digestive difficulties* is to keep the baby on a food that's designed for that very purpose.

BAKER'S MODIFIED MILK POWDER provides a nourishing day-by-day ration for the normal infant . . . wards off problems and helps to clear up delicate and difficult cases. It is well tolerated by newborns and prematures, and makes an excellent complementary or supplementary food. It helps to discourage regurgitation and correct loose or too frequent stools—especially when acidified.

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And, of course, it provides those seven *extra dietary essentials* which Baker-fed babies always get—a rich supply of protein (40 per cent more than breast milk), complementary gelatin, an adjusted fat, two added sugars, 400 units of vitamin D per quart, extra vitamin B₁, and iron—all in highly tolerable form.

Pretty sound policy — preventing feeding troubles before they start . . . Complete data on BAKER'S MODIFIED MILK POWDER will be sent you upon request.

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A powder and liquid modified milk product especially prepared for infant feeding. Made from tuberculin-tested cows' milk in which most of the fat has been replaced by animal, vegetable and cod liver oils, together with lactose, dextrose, gelatin,

vitamin B complex (wheat germ extract fortified with thiamin), and iron ammonium citrate, U. S. P. Not less than 400 units of vitamin D per quart. Four times as much iron as in cows' milk.

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News Notes

Bucyrus—The Wagner-Murray-Dingell bill was discussed by Dr. D. D. Bibler at a meeting of the Lions Club.

Cleveland—"Menopausal Syndrome" was the topic discussed by Dr. E. E. Beard at a meeting of the Community Temple Women.

Columbus—Dr. William P. Smith spoke on "The Human Body" at a meeting of the Southeast Lions Club.

Lorain—Dr. C. M. Kolezum discussed "Old and the New Bone and Joint Surgery" at a meeting of the Central Business Men's Association.

Marion—Dr. and Mrs. J. G. Seiter recently celebrated their 60th wedding anniversary and also Dr. Seiter's 91st birthday. Dr. A. Rhu, who is 94, was one of the guests at a dinner party in their honor.

McArthur—Dr. Herbert B. Chamberlain explained objections to S. 1161, the Wagner-Murray-Dingle bill, at a meeting of the Rotary Club.

Portsmouth—Latest practices in medicine and surgery were explained by Drs. A. P. Hunt, D. A. Berndt, W. A. Quinn and C. W. Wendelken at a meeting of the Rotary Club.

Salem—Dr. Ralph B. Vance told local Kiwanians about the proposed Wagner-Murray-Dingell bill at a recent meeting.

Toledo—The dangerous provisions of the Wagner-Murray-Dingell bill were explained by Dr. James Mullen at a meeting of the East Toledo Club.

Zanesville—Dr. C. J. Roach was re-elected president of the staff of Good Samaritan Hospital. Other officers are Dr. W. D. Coffman, vice president, and Dr. R. S. Martin, secretary.

Zanesville—The Kenny treatment of infantile paralysis was discussed by Dr. George Malley at a meeting of the Rotary Club.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Hazel W. Culp, Los Angeles, and Capt. Matthew Ginsburg, Camp Stoneman, California (both formerly of Toledo); Miss Rosa L. Foertmeyer and Dr. Nelson H. Kraeft, both of Cincinnati; Miss Jacqueline Lieberman and Dr. Myron Steinberg, both of Youngstown; Miss Martha E. Harper and Dr. Paul R. Zeit, both of Cleveland.

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The exigencies of wartime production have not affected the purity, quality and effectiveness of KARO as a milk modifier.

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Plasma must be available and ready for use with a minimum of delay to be effective in such cases. That is why the demand for 'Lyovae' Normal Human Plasma is keeping pace with the increasing production of this stable, portable preparation.

'Lyovae' Normal Human Plasma can be kept without refrigeration wherever treatment of shock, severe burns or hypoproteinemia may be urgently required.

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Do You Know - - -

The mid-winter examinations of the State Medical Board will be held at Columbus, December 13-16.

* * *

In the 1942 bibliography of the history of medicine for the United States and Canada there appeared 19 items under the history of Ohio by the group in the Ohio Archaeological and Historical Society.

* * *

The 33rd degree in Masonry was recently conferred on Dr. Roy D. Arn, Dayton, now a major in the Medical Corps of the Army of the United States.

* * *

Dr. and Mrs. Charles Lukens, Toledo, celebrated their golden wedding anniversary on September 27. Dr. Lukens was President of the Ohio State Medical Association in 1920.

* * *

Miami County Boards of Education have received a communication from the Miami County Medical Society urging them to amend their regulations to include immunization against diphtheria as well as vaccination against smallpox as a prerequisite to school attendance. Immunization may be required in accordance with the new School Code adopted at the last session of the Ohio General Assembly.

* * *

The Ohio Division of the Women's Field Army for the Control of Cancer has received a gift of \$5,000 from the estate of the late Amos A. Barron, Cleveland. The money will be used to develop the organization's educational program in Ohio.

* * *

"Uncle Sam will be your doctor if Senate Bill 1161 passes," Msgr. Maurice Griffin, Cleveland, trustee of the American Hospital Association, told members of the Toledo Rotary Club at a meeting October 12.

* * *

Dr. Walter J. Zeiter, Cleveland, was elected executive director of the American Congress of Physical Therapy at its 22nd annual session in Chicago in September.

* * *

Dr. Charles F. McKhann, professor of pediatrics and communicable diseases, University of Michigan Medical School, and professor of maternal and child health in the School of Public Health, has resigned to accept a position as Assistant to the President of Parke, Davis and Company. Dr. McKhann will devote his time entirely to the scientific activities of the company. He is a member of the Michigan State Medical Society, American Medical Association, American Society for Clinical Investigation, American Col-



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lege of Physicians, American Academy of Pediatrics, Society for Pediatric Research (president 1936) and the American Public Health Association.

* * *

According to Bureau of the Census reports, rheumatic fever is responsible for more deaths of children from 5 to 14 years of age than any other cause, and accounts for a large number of deaths in older age groups as well.

* * *

Dr. Fred W. Dixon, Cleveland, a member of the Committee on Scientific Work of the Ohio State Medical Association, was recently appointed a vice-president of the American Laryngological, Rhinological and Otological Society.

* * *

Dr. Carl A. Wilzbach, Cincinnati health commissioner and chairman of the sub-committee on Public Health Education of the Ohio State Medical Association, spoke on "Results of Medical and Dental Examinations of 2,500 Senior High School Students," at the 72nd annual meeting of the American Public Health Association in New York.

Amounts Spent for Aid to Needy in Ohio for Period 1939-42

A comprehensive report on the amount of assistance extended to needy persons in Ohio during the period 1939-1942 was recently published by the Bureau of Research and Statistics of the State Department of Public Welfare. The total cost of non-institutional public aid is shown by counties and for the entire state. Information on the proportionate share of the costs of public aid borne by the Federal state and local governments is presented in short and tabular form.

The total amounts of money or their equivalent furnished to recipients of aid in Ohio under the various programs, for the four years 1939-1942, were, in round millions of dollars:

1939	\$188,000,000
1940	143,000,000
1941	113,000,000
1942	83,000,000

Proportions of aid provided by the Federal, state, and local governments were approximately the following:

	Percent of Total			
	1942	1941	1940	1939
Federal	60	68	71	77
State	33	25	21	16
Local	7	7	8	7

Copies of the complete report may be obtained by writing the Bureau of Research and Statistics, State Department of Public Welfare, State Office Building, Columbus.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 39

December, 1943

No. 12

JONATHAN FORMAN, M.D., *Editor*

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Blood Chemistry And The General Practitioner

ROBERT G. LEHMAN, M.D.

AMONG the notable advances in clinical medicine during the past 20 years has been the development of laboratory medicine and its increasing application to the study of disease. However, optimal usage of laboratory aid demands full appreciation of the chemistry and pathologic physiology involved in any given diagnostic problem, and it is the purpose of this discussion to review certain facts and factors which tend to increase the scope of usefulness of the laboratory if such are kept in mind.

I. BLOOD NITROGENOUS COMPOUNDS

Excluding blood proteins, the blood nitrogenous substances include uric acid, creatinine, urea and non-protein nitrogen. (For practical purposes it is customary to consider urea in terms of urea nitrogen and to speak of non-protein nitrogen as NPN.) Ordinarily, urea nitrogen comprises about 50 per cent of total NPN, so that one value can be relatively accurately estimated from the determination of the other, as has been pointed out by Nicholson.¹ In other words, it is seldom necessary in the average clinical problem to request determinations of both blood urea nitrogen and NPN, for one gives as much information as the other. It is not generally appreciated that elevation of the normal values of these substances does not occur until a relatively great functional impairment of the kidney occurs. NPN elevation does not occur until about 60 per cent of renal tissue is functionally damaged, whereas urea N elevation does not occur until about 75 per cent of renal damage has occurred.² Thus it is obvious that the determination of urea N or NPN is of no aid

The Author

● Dr. Lehman, Dayton, Ohio, is a graduate of Hahnemann Medical College of Philadelphia, 1938; formerly resident in medicine. Miami Valley Hospital, Dayton. Lt. Comdr., U.S.N.R

in detecting early functional impairment of the kidneys. In the diagnosis of early damage, the clinician must resort to studies of renal concentration and dilution, such as the Mosenthal or similar test, or studies of renal excretory function, as in the PSP test. Normal concentrating ability at once precludes the necessity of either PSP or blood chemical studies if the point at issue is purely renal damage. If concentrating power is impaired, the PSP test is next in order, for retention of nitrogenous products is rare unless PSP excretion is less than 40 per cent in two hours.²

In the intelligent interpretation of determinations of blood nitrogenous substances, it must be remembered that the ability of the kidney to excrete these substances is a selective capacity. Creatinine is excreted most readily, urea next readily, and uric acid with the most difficulty.³ Thus, in severe renal impairment, uric acid rises first, followed in succession (as renal damage progresses) by urea and creatinine. This comprises what has often been referred to as "staircase retention" of nitrogenous substances. Thus, it is obvious that elevation of urea N reflects slighter degrees of renal damage than creatinine elevation, since the latter is the last substance to become elevated in progressive loss of

renal excretory power.³ By the same token, every patient whose blood uric acid is above 4 mg. per 100 cc. does not have gout, for such elevation may represent beginning retention in severe kidney damage.

Notwithstanding the basic essentials emphasized above, a word must be said about azotemia (nitrogen retention) which occurs in other than nephritic lesions. In nitrogen retention resulting from hypertrophy of the prostate gland with retention of urine, a much less grave prognosis may be attached ordinarily to a degree of uremia which, if it existed on a nephritic basis, might justifiably cause grave concern. In this condition it is not unusual to find a high creatinine value, which, per se, is usually indicative of severe renal damage. But if the clinician considers the pathologic physiology involved, he will remember that if retention has not been present for too long a time, a good functional result may result from proper therapy. The uremia inevitably present in diabetic coma is another example of this same variety; it is common experience to find an advanced degree of nitrogen retention accompanying diabetic ketosis and this rapidly disappears as the patient is restored to normal physiology.

The state of dehydration per se demands mention, for in hypertrophy of the prostate with retention of urine, as well as in diabetic ketosis, intestinal obstruction and other states, dehydration is accompanied by marked nitrogen retention. It is well to keep in mind that dehydration itself may cause nitrogen retention as well as marked urinary changes.⁴ An excellent discussion has been presented by Simeone in a recent issue of the *New England Journal of Medicine*.⁴

Marked retention of nitrogenous substances, without accompanying kidney damage, occurs in "alimentary azotemia"; such a state results when hemorrhage into the gastro-intestinal tract (such as occurs in bleeding peptic ulcer) results in the absorption of the decomposition products of blood proteins at a pace faster than the kidney can excrete them. Frequent estimations of urea N will, in these cases, reveal continued bleeding when other indices are not present. Elevation of urea N usually parallels elevation of the leucocyte count as hemorrhage continues. In simple high obstruction of the small intestine (duodenal or high jejunal), elevation of urea N and NPN accompany the dehydration, diminished urinary output and chloride loss that occur in this surgical state.⁵ Here the mechanism of the azotemia is somewhat more obscure, but it seems probable that it results from the absorption of toxic protein decomposition products from the obstructed loop, and inability of the kidney to excrete them at the rate they are absorbed. In this state (an is hemorrhage into the gastro-enteric tract), the azotemia is alimentary and may

occur in the presence of normal kidney function.⁶

II. BLOOD PROTEINS

Studies of the blood protein values in man have received special emphasis lately because of the work being done on shock, wound healing, nutritional deficiencies and liver disease. Marked depletion of serum protein is encountered in many nutritional deficiency states as well as in liver disease and the nephrotic syndrome. Hyperproteinemia may occur in liver disease (although at the expense of albumin) and is frequently encountered in lymphogranuloma inguinale and multiple myeloma. The normal range of blood proteins is from 6 to 8.5 grams, of which 60 per cent is albumin, 40 per cent globulin. The albumin fraction is one of the essential mechanisms in maintaining blood osmotic pressure and this fact is important in the analysis of certain edematous states.⁷

III. CHOLESTEROL

This substance, so enigmatically essential in body chemistry, normally ranges from 140-200 mg per 100 cc. Increases occur in the nephrotic syndrome, hypothyroidism and diabetes mellitus. Decreases occur in hyperthyroidism, anemia and epileptic attacks.⁸ Decrease in the blood cholesterol is one of the best means of diagnosing early hyperthyroidism.⁹ Conversely, hypercholesterolemia is a feature of myxedema and may be helpful in differentiating heart failure due to thyroid deficiency from similar causes of cardiac insufficiency, such as thiamin deficiency. (beriberi heart).¹⁰

IV. ICTERUS INDEX

This simple laboratory procedure consists in comparing the color of blood serum with a standard potassium dichromate solution. Normal serums show 1-6 units; from 7 to 15 units is the phase of latent jaundice and over 15 units usually means frank icterus. In addition to its obvious use in liver disease, it is an important determination in the study of the anemias for it determines at once whether the factor of hemolysis is present. But the value of the icterus index is not confined to these more prosaic issues. Boyd¹¹ has pointed out its value in addisonian pernicious anemia; he states that in untreated addisonian anemia the finding of an elevated icterus index (usually 7-15) is as much a sine qua non of diagnosis as hyperchromia and macrocytosis of erythrocytes or achylia gastrica. This is of diagnostic value in the differentiation of true addisonian pernicious anemia from other states in which macrocytic hyperchromic anemia and achlorhydria may occur, such as gastric cancer; in the latter, hyperbilirubinemia does not occur and the icterus index is normal. In pulmonary infarction the icterus index is frequently elevated

following the infarction, due to excessive bilirubin being absorbed from the decomposing hemoglobin in the infarcted area; either latent or frank jaundice occurs in a large number of these cases. This fact may be helpful in differential diagnosis. Elevation of the icterus index also frequently occurs following acute cholecystic episodes, and this may be helpful in differentiating an acute coronary episode in a patient who concomitantly presents cholecystic and coronary artery disease, a quite common clinical association.

V. BLOOD CHLORIDES AND CARBON DIOXIDE

The normal sodium chloride content of the blood is from 450 to 550 mg. per 100 cc; the carbon dioxide combining power is from 45 to 60 volumes per cent. There are certain disadvantages to expressing these values as milliequivalents per liter. (See any standard textbook of chemistry for the definition of a milliequivalent.) The cations of the blood total 150 milliequivalents, which is necessarily the value of the anions. Sodium totals 140 of the total 150 milliequivalents of basic ions, and for all practical considerations is the blood base. The chloride ion averages about 100 milliequivalents per liter and the bicarbonate ion (CO_2) about 26 milliequivalents. The total base concentration in the plasma of patients with renal insufficiency is invariably low.⁴ Correct interpretation of sodium, chloride and carbon dioxide values necessitates a thorough knowledge of acid-base equilibrium, and in the elucidation of this problem the papers of Simeone⁴ and others¹² are helpful.

SUMMARY

1. A brief discussion has been presented of some of the more common blood chemical studies and their interpretations.

2. A knowledge of the pathologic physiology and chemistry involved in any diagnostic problem is essential to a proper interpretation of blood chemical analyses.

3. Careful analysis of the above factors will increase the scope of usefulness of laboratory medicine in its application to clinical problems.

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Cutaneous Moniliasis

It is a known fact that monilial infections of the skin are extremely common. Lewis and Hopper have proved this by obtaining cultures from the skin, tongue, and feces of 100 dispensary patients with suspicious lesions. *M. albicans* was cultured from the skin in 27, from the tongue in 39, and in the feces in 27.

Unfortunately, improvement in the therapy of moniliasis has not kept up with the recent dissipation of much of the fog which has for so many years shrouded the diagnosis of its many faceted variations.

Let us consider the more recent therapeutic measures first, beginning with a controversial one—namely, immunologic therapy. This consists of the intracutaneous injection of trichophytin or oidiomycin in increasing doses, beginning with dilutions of 1:1,000 and increasing slowly to 1:50, depending upon the tolerance of the patient. Acute exacerbations of the monilial infection or new outbreaks are a sign of overdosage, and the vaccine should be stopped until the cessation of the exacerbations. Lewis and Hopper used oidiomycin in a series of 48 patients. Not a single cure was noted. Sutton and Sutton state that it is not a satisfactory therapeutic measure and is greatly inferior to local treatment. Sulzberger and Wolf state that immunologic treatment is sometimes followed by improvement or even cure when all other attempts have failed; yet in another sentence they state that it is of limited practical value. While there have been some favorable reports, they are, nevertheless, specially noted for their paucity. Inhalations with ethyl iodide, according to the method of Schwartz, and the internal administration of the iodides have been used, but except in a few instances results have been indifferent.

Avitaminosis as a contributing actor of moniliasis is of interest in view of the original observations of Sebrell and Butler, who noticed perlèche-like lesions in 10 of 18 women who were put on a pellagra-producing diet. Of the 10 women with perlèche, four were promptly cured with riboflavin. In patients with active foci of infection in the gastrointestinal tract, it would be well to eliminate the carbohydrates, substituting dextrose for cane sugar and administering large doses of calcium and magnesium carbonate, according to the plan of Hopkins. At the same time, vitamin B-complex and sulfur should be given. In the experience of the author, early rapid progress is common with almost any kind of good therapy, but later on there are remissions, exacerbations or lack of progress, despite the most intelligent therapeutic efforts. This holds especially true of the monilial intertrigos.—Paul E. Bechet, M.D., New York City; N.Y.S. Jour. of Med., Vol. 43, No. 21, November, 1943.

The Senile Psychoses and Psychoses With Cerebral Arteriosclerosis

J. J. ALPERS, M.D.

THE problem of the aged will always be with us and their care will, as in the past, constitute a serious medical problem. Grandfather was "queer" and we also will be considered "queer" when we become grandfathers. I will discuss briefly the two commonest psychiatric problems of the aged that we as practitioners of medicine are called upon to recognize and treat.

First the senile psychoses, of which the essential features are progressive impairment of mental resources and a gradual withdrawal of the personality from the present into the past.

We must not confuse normal senility with the senile psychoses. The passage from old age to senile dementia is very insidious. Normally we find an inability to assimilate the new ideas of others. There is a lessening of ambition and of activity. It takes longer to perform old familiar tasks. The entire memory becomes poorer, at first for names and similar efforts, only.

The symptoms of normal senility gradually increase and become intensified finally developing into the psychoses. One of the earliest symptoms noticed is a change of character, firmness becomes stubbornness, care changes into distrust, economy into stinginess. We note a loss of memory for recent events with a retention of memory for remote events. These cases can tell you in great detail of events that took place 15 or 20 years ago, but are unable to recall what they had for breakfast the day you talk to them. Their natural affection becomes dull and may even turn into hatred toward those they love most dearly. They become indifferent to the normal demand of society and thus are seen to become untidy in their personal appearance and in their habits. They become irritable, distrustful, prying and suspicious. They slip further and further away from the present and come to live finally entirely in the past. They become disoriented for time and place especially, and in their confusion may wander away and become lost. Their nights are restless and usually spent prowling around the house, seemingly on the search for something or else spent in some useless activity. They will then sleep throughout the greater part of the day. Hallucinations are frequently noted, they see or hear dreamlike transactions. Delusions many times

The Author

● Dr. Alpers, Columbus, Ohio, is a graduate of Tufts College Medical School, 1928; member American Psychiatric Association; Association Military Surgeons; neurological consultant, Student Health Service, Ohio State University; clinical assistant in neuropsychiatry, Ohio State University.

absurd in character are not uncommon. Contact with the environment becomes less and less and a negative, mildly stuporous state may finally develop.

The symptoms outlined above are those of the simple senile deterioration. We see occasionally other types of the senile psychoses. There is the delirious and confused type because as the name implies delirium and mental confusion is predominant. The same holds true of the depressed and agitated type. In the paranoid type deterioration is not as rapid as in the other types and paranoid delusions are outstanding.

From the neurological standpoint extreme old age brings on certain symptoms: the bent back, slow gait, expressionless faces and tremor are the most common.

It is possible to care for the milder forms of the senile psychoses. Wherever possible this is the preferable treatment. One should, however, always keep in mind the family group and care should be taken to see that the presence of the senile does not cause too great a hardship on the younger members of the family. We find that the patient is happier at home, as a rule than he will be in unfamiliar surroundings. It has been the writer's experience, however, that most of these individuals will eventually make the adjustment to institutional life. They may be given any of the milder sedatives for their restlessness and the use of vitamin therapy is especially indicated.

The incidence of psychoses with cerebral arteriosclerosis is high. The age of onset varies but is, in general, between 50 and 65. The cerebral arteriosclerosis may be part of generalized arteriosclerosis, or it may be confined to the cerebral vessels. The clinical symptoms are varied depending upon the size and location of the arteries involved. This discussion is limited to the disturbances that follow damage to

the cortical vessels, ignoring sclerosis of the larger cerebral vessels.

The psychic symptoms, like the physical symptoms of cerebral arteriosclerosis begin insidiously. Some of the early symptoms are mental fatigability, a weakness of initiative, a lessening of the capacity for work, especially mental tasks, and irritability. There may also be noted an inability to concentrate and at times a "blank feeling". These early symptoms are accompanied by headaches, dizziness, fainting spells, buzzing in the ears, spots in front of the eyes, anorexia and insomnia. A great many times the early picture is called neurasthenia and the patient treated for the same, the deeper etiological factor being overlooked or ignored.

We gradually note an impairment of the capacity to think quickly and accurately. There is a loss of interest in new things and situations. In all of these individuals one notes a marked disturbance in their emotional life, some of the finer sentiments such as affection may be destroyed. Childishness, stubbornness, or obstinacy may appear. The presence of emotional stability, that is, the ready display of tears at the slightest provocation is a diagnostic characteristic. Memory disturbances at first mild soon become serious. A patient whom I examined recently was unable to retain anything in his memory for more than two minutes. Many times when he was sent to the corner grocery store by his wife he would forget his way home and become lost. These changes may be inconstant, however. They may have days or weeks when they seem normal only to relapse again.

With the gradual progress of the disease process one notes periods when the patient becomes irritable, dictatorial, and meddlesome. One then finds outburst of excitability, or anxiety states which assume a delirious character with failure to recognize environment, dreadful delusions of being cut up, burnt, buried alive, etc.

The patient recovers partially from these episodes but each episode often leaves him with more mental impairment. The speech becomes slow and less articulated. He becomes neglectful of his personal appearance, his clothing may not be clean, he may fail to bathe, and he may even fail to avail himself of toilet facilities.

The prognosis is naturally unfavorable, but the progress of the disease is many times interrupted by periods of seemingly normality.

The milder forms of the cerebral arteriosclerotic like the senile may be cared for at home, but a carefully regulated mode of life is a fundamental requirement. An agreeable occupation, not requiring very much mental or physical exertion is desired, or an avocation similar to the occupation mentioned above should be encouraged. Inactivity is very undesirable and can

cause more harm to the milder cases than moderate activity. The severe excited or violent forms will of course require institutional treatment. The use of mild sedatives is desirable. My patients are placed routinely upon a one-half grain of phenobarbital three times a day, and also the following iodide preparation:

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Gall Bladder Problem

Treatment.—Cholecystitis is recurrent and progressive. By proper dietetic and other measures, the patient may get along fairly well for a time, but gradually the primary disease, with or without stones, is followed by destructive changes in the biliary system, as well as in other organs.

The liver is especially subject to injury in cholecystitis, the parenchyma being first involved. If the causative agent is removed early, regeneration of the diseased portion will take place. With continued onslaught, however, the entire organ may undergo pathologic change. Some years ago, Counsellor and his associates did some excellent work in illustrating the varying degrees of damage to the liver architecture as a result of biliary tree infection and obstruction. They showed that a prolonged obstruction of the common duct will produce sufficient back pressure and dilatation of the ducts to distort the liver and give the impression of hydrohepatosis, just as hydronephrosis follows blockage of the ureters. The longer the obstruction persists, the greater the injury to the liver and the less the likelihood of repair.

As to the gallbladder itself, neglect of proper treatment may lead to inflammation and edema of the surrounding tissues and to the formation of disabling adhesions, while within the walls the process may continue on to gangrene and perforation. The usual site of perforation is posteriorly into the liver substance, where it is protected. Not infrequently, however, it takes place near the cystic duct and is protected by surrounding structures. Rarely, perforation occurs into the free peritoneal cavity.—R. L. Sanders, M.D., Memphis; Jour. Ark. M. S., Vol. XL, No. 5, October, 1943.

Recent Advances in Clinical Ophthalmology

JOHN E. L. KEYES, M.D.

THE purpose of this communication is to compare briefly two of the most recent therapeutic agents used in the treatment of ocular diseases. These are the sulfonamide compounds and penicillin.

The relatively well known indications for the therapeutic exhibition of sulfonamide drugs in the treatment of eye diseases have been summarized recently by Thygeson.¹ Writing of the sulfonamide drugs in ophthalmology, he states, "It is concluded that these drugs properly employed should lead to rapid and complete healing of the majority of ocular infections caused by the viruses of trachoma, inclusion conjunctivitis and lymphogranuloma and by gonococcus, meningococcus, alpha and beta hemolytic streptococcus, staphylococcus (*Staph. aureus*), pneumococcus, influenza bacillus, diplobacillus, coliform rods, Friedlander's bacillus and pyocyaneus bacillus."

The sulfonamide preparations commonly used in ophthalmology are sulfanilamide, sulfathiazole including its sodium salt, and sulfadiazine. These drugs may be administered orally or locally. Sulfanilamide is particularly useful internally in trachoma, inclusion conjunctivitis and lymphogranuloma venerum. There is increasing evidence that sulfathiazole and sulfadiazine may be as effective internally as sulfanilamide in these diseases. Sulfathiazole is commonly used in a five per cent ophthalmic ointment. The sodium salt of sulfathiazole, sodium sulfathiazole sesquihydrate, (2-sulfonilamidothiazole sodium), because of its solubility in water, is useful externally in three per cent or five per cent aqueous solution. This solution has an alkaline Ph and may produce some local reaction after prolonged treatment. Sulfadiazine and its sodium salt may be used locally in ointment form; however, sulfadiazine is the drug of choice for internal medication.

Thygeson² found 100 per cent hydrous wool fat ointment base most efficient, experimentally, in releasing sulfathiazole over a period of two hours. An ointment base consisting of 25 per cent hydrous wool fat combined with 75 per cent petrolatum was nearly as efficient.

Powdered sulfadiazine and sulfanilamide and microcrystals of sulfathiazole may be insufflated into the lower conjunctival cul-de-sac every three or four hours in severe infections.

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The oral administration of a sulfonamide compound should not be approached in a haphazard or timid manner. The method of administration of sulfadiazine and sulfathiazole employed in the eye, ear, nose and throat subsection at Bushnell General Hospital is summarized.

Most of the patients are adult males of Army age. A complete physical examination is made. Emergency laboratory examinations of urine and blood are accomplished and the identity of the causative organism established. A history of toxic manifestations from previous treatment with a sulfonamide, faulty renal function or anemia, are evaluated. A concentrated acid urine with excessive precipitation of acetylated drug is avoided by pushing fluids by mouth and giving sodium bicarbonate with the sulfonamide. The urine is examined daily and the cellular contents of the blood estimated each second day during administration of the drug. A cell count of four-thousand (4000) white cells and a red count of three million (3,000,000) cells necessitates transfusion with whole blood or withdrawal of the sulfonamide therapy. A blood concentration range of 7.0 mg. to 13 mg. per hundred cubic centimeters of sulfadiazine has given best results in the E. E. N. T. service at this hospital.

An initial oral dose of 4.0 gms. of sulfathiazole or sulfadiazine is employed. Sodium bicarbonate, 2.0 gms., is given at the same time. 1.0 gm. each of the sulfonamide and sodium bicarbonate is administered every four hours during 24 hours. The blood level or concentration of the sulfonamide is then estimated. If the blood concentration is insufficient a 2.0 gm. or 4.0 gm. dose of the drug is given. When a satisfactory blood level has been obtained it can usually be maintained by a sulfonamide dosage of 1.0 gm. each five or six hours. Sodium bicarbonate is replaced by sodium citrate about the third day of treatment if the urine is neutral or alkaline to litmus paper.

Submitted August 16, 1943.

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Treatment with sulfonamide compounds should be continued several days after apparent clinical cure has been accomplished to avoid a relapse due to the bacteriostatic action of the drug.

The ultimate field of usefulness of penicillin in the treatment of ocular diseases has not yet been established. Enough therapeutic evidence has accumulated to indicate definitely certain ocular diseases in which penicillin is undoubtedly a drug of choice. There are strong suggestions, from research being conducted at Bushnell General Hospital, that it will be efficacious in other eye diseases in which it has not yet had a thorough trial.

There are six references in medical literature to the use of penicillin in the eye. One of these is in an editorial discussing the subject.⁴ Two reports are by a group of authors, and deal with the beneficial effects of penicillin in the eyes of experimental animals (rabbits) infected with *staphylococcus aureus*.^{5,6}

The use of penicillin in human eyes is reported by three authors. One reports the non-toxicity of the ammonium salt when applied directly into the normal human eye.⁷ Two^{8,9} report the use of penicillin therapeutically in a variety of conditions from simple conjunctivitis to chronic severe necrotizing corneal ulcers.

It has been ascertained that penicillin is particularly useful locally and systemically in infections caused by *streptococcus hemolyticus*, *staphylococcus aureus*, *pneumococcus*, *gonococcus*, *menigococcus*, *B. diphtheria*, and *Koch-Weeks bacillus*.

It is becoming obvious that penicillin is most effective in the presence of many organisms which are also susceptible to the sulfonamides, particularly sulfathiazole and sulfadiazine. Further analogy between the sulfonamide and penicillin exists. Both drugs, in certain concentration, are bacteriostatic in action, also organisms become resistant to both drugs. It is necessary to continue treatment with both drugs for several days after apparent cure to prevent relapse. Because of the bacteriostatic action of penicillin in weak concentrations it is necessary to keep the patient well saturated systemically with the drug and/or to use topical applications frequently with the hope that a bactericidal effect will be achieved. Insufficient dosage parenterally or locally may result in the organism being treated becoming penicillin fast. This would be particularly unfortunate because, to date, a method of resensitization has not been evolved. In such a case, the dosage of penicillin should be increased. If curative results are not obtained the substitution of a suitable sulfonamide or other drug should be considered. The activity of penicillin is greatly reduced in the presence of colon bacilli, therefore, it is inadvisable to treat

a mixed infection with penicillin in which *B. coli* is present.

The practical methods of administering penicillin in ocular diseases are by instillation in the eye in the form of drops and by intravenous and intramuscular injections. Penicillin has also been incorporated in an ointment with reported satisfactory results in the treatment of burns.³ The most desirable ointment base for prompt and continued release of penicillin has not been ascertained. It must always be remembered that penicillin deteriorates rapidly and that all solutions and preparations of the drug must be kept in a refrigerator. Preparations used more than 14 days after preparation should be tested for potency by "ring test".

Solutions for instillation in the eyes should not exceed 250 to 1,000 Oxford units per 1 cc. during the present scarcity of the drug. Solutions up to 5,000 units per 1 cc. have been instilled in the human eye without harmful results. The present practice is to instill two or three drops of penicillin solution in the eye under treatment as frequently as every hour, or in grave cases, each one-half hour until clinical improvement, supported by bacteriologic findings, is evident. The frequency of dosage is then slowly decreased. Treatment should be continued for several days after a clinical cure is apparent, to prevent relapse.

Intravenous and intramuscular dosages of penicillin range from 5,000 units to 15,000 units administered two or three hourly with a total maximum dosage of 120,000 units in 24 hours.

Parenteral treatment of eye diseases with penicillin is particularly beneficial in orbital cellulitis caused by organisms sensitive to the drug. Based on the splendid results obtained in gonorrhea, this mode of treatment should supplement local instillations in gonorrheal ophthalmia in infants or adults.

Ocular diseases caused by sulfonamide fast organisms susceptible to penicillin should be actively treated with penicillin.

Hospitalization of patients to be treated with penicillin is essential at present. The drug must be freshly made and protected from deterioration. It should be administered by a person experienced in handling the preparation. The clinical aspect of the disease being treated should be supported by close cooperation with the hospital laboratory. The patient should be isolated and protected by thorough asepsis from cross infection, particularly with some organism not sensitive to penicillin. Careful attention should be given to indicated medical and surgical procedures and supporting diet.

It may be beneficial in some instances to use a combination of penicillin and a sulfonamide compound. Possibly the penicillin should be ad-

ministered parenterally and the sulfonamide locally. This method of treatment suggests itself in the presence of mixed infections.

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Transfusion Reactions

The knowledge of the Rh substance made available by the studies of Landsteiner, Levine, Wiener, and others, has contributed materially to the identification and prevention of transfusion reactions. These new data should rightfully be received with enthusiasm but at the same time they should not obscure in any way the many lessons previously learned regarding the successful management of blood transfusions. This new information is one more forward step comparable to identification of pyrogen reactions, popularization of citrated blood or development of blood storage.

Human blood contains many specific substances of which only a few are of interest to physicians. The A and B substances are well known since they are responsible for the division of bloods into the four blood groups: AB, A, B, O (Moss groups 1, 2, 3 and 4, respectively). The M and N substances are useful in medicolegal problems and very rarely are involved as a cause of transfusion reactions. Until recently, the Rh substance had no clinical application and for this reason, like most of the other specific blood substances, was unknown to physicians. Now that the significance of the Rh substance has become apparent, a knowledge of its properties has become important.

No definite direct information is yet available relative to the physical properties of the Rh substance. Presumably, like the A and B substances, it is a carbohydrate fixed to the protein of cells.

The Rh substance is, in general, similar to the A and B substances which determine the division into the four blood groups. Rh positive individuals cannot become sensitized. Rh negative

individuals, if inoculated by transfusion—or during pregnancy from the fetus—may develop antibodies. The Rh substance varies greatly in its antigenic property: some people become sensitized very readily, while others either form no antibodies or do so only to a slight degree. The antibody which can be demonstrated in the laboratory is the agglutinin. Apparently other types of antibodies are formed which are not detected by laboratory tests but will produce transfusion reactions or erythroblastosis in the fetus. The absence of demonstrable agglutinins, therefore, does not exclude the presence of other dangerous antibodies.

In pregnancy the antibodies may develop between the eighth and twelfth weeks so that transfusions after early abortions must be handled in the same way as those later in pregnancy. The antibodies may persist for many months after delivery and in exceptional cases have been observed at two and six years after the last pregnancy. An investigation of the obstetrical history of women should be made prior to a transfusion and, if any evidence of erythroblastosis in the babies is present, the possibility of sensitization should not be overlooked.

Except under rare circumstances whole blood should never be given to pregnant or puerperal women until their Rh grouping is known. If they are Rh negative, only Rh negative donors should be used. In case where no evidence of sensitization can be demonstrated, Rh positive blood can be given if the Wiener biologic test is negative.

If multiple transfusions are to be given a knowledge of the Rh grouping is very helpful. If Rh positive, the transfusion program can be carried out with no worry relative to Rh sensitization. If the patient happens to be Rh negative, an attempt may be made to complete the transfusion program within the five- or six-day period before antibodies can develop. If this is not practical, the transfusions should be spaced close together—for example, at two- to four-day intervals. The evidence indicates that if transfusions are spaced closer together, the reaction—when it develops—will be of a mild degree. After reactions develop, the transfusion program can be continued but only by using Rh negative donors.

In transfusing erythroblastotic babies the mother's blood should not be used. There may be a question as to whether or not Rh negative donors are preferable but under no circumstances should the child's condition be allowed to deteriorate because of a delay attending a search for Rh negative donors.—R. W. Koucky, M.D., Minneapolis; *Minn. Med.*, Vol. 26, No. 11, November, 1943.

Effects of Pyridoxine on Nausea and Vomiting of Pregnancy

Results of Treatment of Forty Patients*

WYNNE M. SILBERNAGEL, M.D. and OLAN P. BURT, M.D.

NAUSEA and vomiting of pregnancy, varying in severity and duration occurs in one-third of all pregnant women. In the treatment of this condition we have run the therapeutic gamut from oral administration of acetanilide to inhalation of vinegar vapor.

Of the theories given as to the cause of this condition the most logical seems to be hepatic glycogen deficiency as all patients with this condition are improved, some only slightly, with bed rest, sedation and intravenous administration of various strengths of glucose solution.¹ There is no doubt that the hepatic glycogen deficiency with its resultant ketosis is due to the failure to retain ingested food. An upset in carbohydrate metabolism leads to incomplete oxidation of fats. In the body neutral fats are split into glycerin and fatty acids and the glycerin may be converted into sugar.² This suggests that fats may contribute directly to sugar production and therefore faulty fat metabolism may result in glycogen deficiency. The physiological action of pyridoxine hydrochloride may be through the exertion of a corrective action on deranged lipid metabolism.³

The use of pyridoxine hydrochloride in the treatment of nausea and vomiting of pregnancy has recently been reported.^{4,5} Since the publication of these two reports we have used pyridoxine hydrochloride in the treatment of 40 patients afflicted with nausea and vomiting of pregnancy. Our results have been gratifying.

PATIENTS TREATED

Of the 40 patients treated for nausea and vomiting of pregnancy six had accompanying skin eruptions of a nonspecific type but with a seborrheic tendency. All six were relieved of the dermatitis while being treated for the nausea and vomiting. Of the 40 patients treated only two were not relieved of the nausea and vomiting. The pyridoxine was administered intravenously. We did not find the oral administration of pyridoxine in doses of 30-60 mgms. daily to be beneficial.

The initial intravenous dose of pyridoxine was 25 or 50 mgms. Of the patients benefited, a feel-

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ing of improvement became apparent within six to 24 hours after the initial injection. The duration of the improvement was variable. Twenty-two patients received one injection and had complete and permanent disappearance of nausea and vomiting. The smallest dose given was 25 mgms. and the largest dose was 500 mgms. over a period of ten days. Some patients were treated over longer periods of time than others but repeated injections were given only when symptoms reappeared.

In order to completely evaluate the clinical effect of this substance these patients were not given any other medication and their daily routine was not changed. They were not placed upon special diets, given sedatives, frequent feedings and none was hospitalized for the nausea and vomiting. By following this plan we felt that any beneficial effect could be attributed solely to pyridoxine.

In order to compare results of treatment we have classified our patients according to the groupings made by Weinstein et al.⁵

Group 1: Morning nausea.

There were four patients in this group. Three patients each received one intravenous injection of 50 mgms. of pyridoxine with resulting cessation of morning sickness within six hours. One patient received an initial injection of 25 mgms. and this was repeated 21 days later because of a recurrence of nausea and vomiting. The largest dose required in this group was 50 mgms. over a period of 21 days. All patients in this group received complete relief.

Group 2: Nausea extending throughout the day.

There were six patients in this group. One of these patients received an initial intravenous

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*The pyridoxine hydrochloride was supplied through the courtesy of Mr. Vincent P. Carr of the Department of Medical Research of The Winthrop Chemical Company.

injection of 50 mgms. and obtained immediate and complete relief. Four patients required only two injections of 50 mgms. each. One patient required additional injections of 50 mgms. at 20 and 29 days after the initial dose. The smallest dose required in this group was 50 mgms. and the largest was 150 mgms. over a period of 29 days. All patients in this group were completely relieved.

Group 3: Nausea and occasional vomiting.

There were 20 patients in this group. Thirteen received one injection of 50 mgms. and obtained immediate and permanent relief. Four patients required two injections of 50 mgms. each. One patient required three injections, one patient required four injections, one patient required six injections and one patient required eight injections to provide complete relief. The minimum dose in this group was 50 mgms. and the maximum dose was 400 mgms. over a period of 76 days. There was one failure in this group.

Group 4: Nausea and vomiting of a degree preventing the retention of any fluids or solids.

There were ten patients in this group. Five of these received one intravenous injection of 50 mgms. of pyridoxine and experienced relief from nausea and vomiting within 24 hours. Two patients required two injections each, one patient required three injections and one patient required five injections. The minimum dose required for complete relief in this group was 50 mgms. and the maximum dose was 250 mgms. administered over a period of 28 days. There was one failure in this group.

SUMMARY AND CONCLUSIONS

Complete relief from nausea and vomiting of pregnancy was obtained in 38 of 40 patients treated with intravenous injections of pyridoxine hydrochloride.

No ill effects were noted.

No other treatment was employed while pyridoxine hydrochloride was being administered.

Improvement in all patients benefited was experienced in six to 24 hours after the initial injection.

The duration of the improvement was variable.

Six patients with accompanying seborrheic type skin lesions were greatly improved.

It is suggested that nausea and vomiting of pregnancy may be due to hepatic glycogen deficiency which may be caused by faulty fat metabolism.

Pyridoxine hydrochloride may work through its corrective action on deranged fat metabolism.

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Pancreatic Disease

Marked loss of weight and recurrent pain are the most common symptoms in carcinoma of the pancreas. The pain is not confined to the epigastrium but may involve any part of the abdomen and may be severe in the back.

More attention should be paid to the search for undigested muscle fibers in the stools. Unless there is greatly accelerated passage of food through the intestine, the presence in the feces of a considerable number of undigested muscle fibers is a definite indication of diminished pancreatic digestion and hence of pancreatic disease. In addition, if chemical facilities are available, the nitrogen output in the feces should be determined because the daily amount is increased four to eight times the normal when the pancreatic ducts are occluded. A marked increase of serum diastase and of diastase in the urine regularly occurs at the onset of acute pancreatic edema and of acute pancreatic necrosis and is of great diagnostic value. The amount of these ferments declines rapidly and may fall to the normal in forty-eight or even thirty-six hours, even when the disease is progressive. The urinary diastase may be found increased after the blood diastase has dropped to normal.

A marked increase of serum lipase occurs early in acute pancreatic disease and may equal in diagnostic value the increase in diastase, but the test has not yet been employed in a sufficient number of cases to permit a definite statement as to its importance when compared with the diastase determination. A diastase determination has the advantage over the serum lipase determination in that it can be performed within an hour to an hour and a quarter while the serum lipase values cannot be estimated in less than twenty-four hours. It is important to make a series of daily determinations as a fall in the amount gives early moderate increases of enzyme value additional diagnostic significance.

The serum lipase is frequently increased in cancer of the pancreas and the serum and urinary diastase are occasionally increased.

The secretin test is of great value in the diagnosis of chronic pancreatic disease, even in cases in which the stools are normal. If secretin is not available, the mecholyl test should be employed.—Joseph H. Pratt, M.D., Boston; *N.Y.S. Jour. of Med.*, Vol. 43, No. 19, October, 1943.

Malignant Disease of The Peritoneum

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WHEN a middle aged patient complains of indefinite dyspepsia, loss of appetite, loss of weight accompanied by anemia, intra-abdominal malignancy should be suspected. An expert X-ray examination at this stage may reveal the presence of malignant invasion of the gastro-intestinal tract. Frequently such patients do not consult a physician until the symptoms of cachexia develop, or vague pains arise within the abdomen, growing in intensity as the disease process develops. When the sympathetic ganglia at the root of the mesentery are involved sensation of pain becomes more acute. When interference with the digestive cycle takes place due to disturbed intestinal motility, the pain becomes colicky or intermittent in character. It is surprising that some patients are able to carry on their life work and apparently be in good health until a few months before they are forced to take down because of abdominal pain or swelling of the abdomen. Such an instance is briefly described in the following history:

A maiden lady aged 41 had never been ill until six weeks before she entered the hospital. Before this she noticed insomnia and that she was "pepless". At this time a drawing pain in the lower part of the sternum developed, spreading to the abdomen which was beginning to swell. The urinary bladder seemed to fill more rapidly and she would pass large amounts of urine. The pain gradually spread to the lower lumbar region and into the pelvis. As late as the 23rd of June she was out shopping but developed such severe cramping pain, that she called her physician. At the exploratory operation performed on June 27th, the surgeon found a large amount of ascitic fluid in excess of one-half gallon, there were dense adhesions of the omentum to the parietal and visceral peritoneum, a portion of which was matted into a mass; a loop of small bowel was caught in the pelvis leading to partial intestinal obstruction; an inflamed appendix and intestinal wall. A portion of the mass was removed for pathologic examination and a diagnosis of adenocarcinoma was made. The patient lingered for a few months and then died; no autopsy was secured.

More frequently the patient gives a history of vague abdominal distress for a year or more, accompanied by distressing fatigue and loss of weight. Abdominal ascites gradually develops with the formation of "caput medusae" when the portal circulation is involved. Edema of the lower extremities develops as a result of phlebitis, thrombosis, or by pressure of failing circulation. Occasionally the process spreads through

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the thoracic duct and causes enlargement of the glands above the clavicle, the so-called sentinel glands. The ascitic fluid obtained is clear, turbid, blood stained or chylous and may contain malignant cells. When large in amount the fluid may obscure a mass which becomes palpable after drainage of the fluid.

Primary cyst adenoma of the ovary may spread to the peritoneal covering of other organs, after the primary tumor mass has been removed, malignant changes subsequently developing. Dermoid cysts are not as likely to become malignant nor lead to secondary involvement; they may be primary in the peritoneum, being found between the layers of the mesentery, omentum and transverse mesocolon and in the retroperitoneal space. Primary tumors of the Krukenberg type containing characteristic mucoid material and signet ring cells, arise in the gastro-intestinal tract and spread to the ovaries by metastasis through the lymphatic route to the lumbar glands.

Usually secondary to malignancy elsewhere, primary malignancy of the peritoneum may exist in the form of sarcomata or epitheliomata and are more difficult to diagnose. As a rule the pain begins earlier and is more intense. The transparent nodules under the serosa resemble tubercles and therefore tuberculosis must be excluded by febrile course, age, involvement of peripheral glands, lungs and other organs or by the animal test after aspirating the fluid. When the course has been prolonged, disease due to the Echinococcus should be suspected.

Primary sarcomata of the peritoneum are rare, arising in the subperitoneal, lymphatic or areolar tissue or from the peritoneal lymph glands. From the lymphatic endothelium primary jelly like angiosarcomata may arise; likewise endotheliomata from endothelial proliferation of lymph vessels, lymph spaces of connective tissue and blood vessels. In such cases through metastases to other organs, cachexia increases or death occurs suddenly through an embolic process.

At times it becomes necessary to differen-

tiate non-malignant neoplasms which may spring from any intra-abdominal organ. Their course is more chronic and less painful; complications arise by pressure on neighboring organs. The patient should be apprised of his condition and surgical exploration with pathologic examination of the material removed should be advised in preference to early symptomatic and X-ray medication.

Vitamin K in Tonsillectomy Granulation Oozing

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ONE of the annoying troubles of post-tonsillectomy care has been the oozing appearing, from three to twelve days after tonsillectomy. The routine treatment of the oozing was to apply pressure to the bleeding area, and this was painful, or touch the bleeding area with one of the caustics as trichlorascetic acid or a 25 per cent solution of silver nitrate. The oozing occurred in various techniques of tonsil and adenoid removal and I was unable to obtain information for its prevention.

While reviewing the different reports stating 10 per cent to 60 per cent of avitaminosis exists, depending upon the reporter and his location, it seemed that vitamin K may be deficient in a corresponding degree and frequency,—as the other vitamins. I have no report of avitaminosis K. If vitamin K is deficient or a borderline status at the time of operation, the post tonsillectomy fasting, particularly in adults and older children, would increase this deficiency. If this rationale is correct, then, avitaminosis K (of various degrees) could cause granulation oozing, plus the throat trauma as coughing, expectorating, swallowing coarse food and so forth. As young children return to their normal diet more promptly than older children and adults, they have less frequent oozing,—personal experience. The operation clotting time has no relation to the oozing,—personal experience.

A prescription is given to the patient as follows: Rx. Vitamin K (Menadione) 2 M/G Tablets xxx Sig: One tablet twice a day until all tablets are taken. The verbal directions are: Start three days before operation. Stop the day of operation. And continue the day after operation until all are taken.

Hypodermic medication may be used if immediate operation is performed, instead of three days of preoperative medication. A check of 235 cases without vitamin K showed post-tonsillectomy oozing average worse than 3 per cent, whereas my last 235 cases with vitamin K showed one case of oozing occurred five days after oper-

ation, but it had stopped by the time it arrived at my office. Unusual physical activity on the fifth day may be a factor.

An interesting case of discontinuing medication after operation follows:

A Greek female eight years of age. Physical examination,—no pathology. Screen test,—negative. Laboratory examination,—with normal range. Clot $4\frac{1}{2}$ minutes. Ether anesthesia. Operation: Tonsils removed by dull dissection and snare. Adenoids removed by LaForce. Operation routine and without incident. Vitamin K routinely prescribed as above, but was not continued after operation. On the sixth postoperative day the mother phoned stating, "child was bleeding from nose and mouth." Examination showed small clot in naso-pharynx, it was removed and intragluteal of vitamin K 3.2 M/G given. Three hours later examination showed a clean naso-pharynx, and another vitamin K 3.2 M/G given hypodermically and oral administration of vitamin K 2 M/G three times daily. No packing used. Discharged two days later from hospital. No further oozing reported.

This small number of adenoid and tonsil operations should be multiplied and then judged before final opinion is passed. It is inexpensive and harmless to the patient.

White Bile

The white bile as seen by the pathologist in overwhelming sepsis rests on a fundamentally different cause from that seen by the surgeon in cases of obstruction of the bile ducts. The difference is that of acholia versus paracholia. These two conditions have not been kept sufficiently separate in the literature.

Infection is not the basic cause in the surgical white bile. The underlying condition is obstruction to the bile flow, though frequently infection is also present.

White or rather colorless bile is a secretion of the ducts with their glands. A water-colored secretion from bile-choked liver acini is not really thinkable. On the other hand a poorly-colored or even uncolored bile in overwhelming sepsis without noticeable obstruction is the result of a greatly disintegrated liver though even here some obstructive swelling in the smallest ducts is conceivable as cooperating.

The dextrose-galactose tests indicate that in cases of even severe icterus, experimentally provoked by ligation of the common duct, the liver function is not (at least for a long time) destroyed in this respect.

Normally colored bile may start flowing immediately after decompression followed by recovery—or may not appear until death.

If normal bile does not appear thirty-six or forty-eight hours after releasing of the obstruction, the prognosis becomes very grave though even after four days' delay recovery was observed.—Arnold Schwyzer, M.D., Saint Paul; Minn. Med., Vol. 26, No. 11, November, 1943.

Congenital Absence Of The Vagina*

PHILIP J. REEL, M.D.

SINCE 1920 I have personally encountered four patients presenting total congenital absence of the vagina. Congenital malformations of the female genitalia, while not common, are on the other hand not infrequent. Various forms of bicornate uteri—uteri with septum complete or partial are not infrequently found during the course of routine pelvic surgery. Malformations of the vagina, such as atresia or complete or partial vaginal septum, cannot be considered rare. Total absence of the vagina, however, is probably the rarest congenital maldevelopment of the female genital tract.

Usually the unfortunate individual presenting such a deformity will show no other lack of feminine characteristics. A review of the literature almost invariably records this class of patient as being well developed physically and harboring typical physiological reactions characterized by ability to respond normally to sexual excitement. The general body contour and proportions in the vast majority of patients, and in all four of those used as a basis for this discussion, have been unusually feminine in their development. Their plight is the more tragic because most of these individuals are attractive to, and attracted by, the male sex. Usually the first intimation of their misfortune comes in early or late adolescence when the lack of the establishment of the menses and examination to determine the cause of this delay exposes the true cause—namely the lack of the vagina.

Occasionally, however, as in the first case in this series, the patient in all innocence had attempted marriage, only to be divorced by her husband as being sexually incapable of meeting her marital obligations. If we are truly realistic, I can imagine no more disheartening condition in a young, healthy, responsive female. She has developed physically—as a rule with good features—well developed breasts and external genitalia, and as she reaches young womanhood experiences all of the inner hormonal sensations of sex, both physiologically and mentally, only to find herself an abnormal misfit in mixed society. The psychological problems which are prone to rise under such conditions are quite manifest.

In most of these patients we find also that the upper genital tract has entered into this developmental defect. The Mullerian ducts by their fusion form the uterus and upper two-thirds of the vagina. The proximal extremities, not enter-

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ing into this fusion, remain as the Fallopian tubes. Recently a case has been reported in which the caudal portions of these ducts failed to fuse. The patient had a completely developed though small uterus and cervix in the middle of the true pelvis. This was connected to the artificial vagina and the patient later conceived and delivered a child. Personally I am inclined to interpret this case as one possibly of atresia of the vaginal tube rather than total absence. If this be true, she probably had a rudimentary cord of epithelial cells running through the tissues which was overlooked at the time of surgical construction of the vagina.

The pelvis usually presents two laterally placed rudimentary enlargements of the Mullerian ducts. They may be symmetrical, but in most instances one will present more hormonal response than the other, thereby being larger. These will appear as two ovoid knobs held by a small mesentery from the lateral pelvic wall. A small rudimentarily developed tube with fimbria is found as a part of this structure. In one of this group we subjected the patient to pelvic surgery for the relief of extreme unilateral pelvic pain which had occurred at rhythmic intervals. The specimen showed a small cavity lined with epithelium which was attempting to menstruate. The distension of this blind cavity each month with a few drops of blood was the cause of her pain since removal was followed by complete cessation of all symptoms.

The ovaries, not having the same embryological origin, are invariably found to be present. Their anatomical location may be slightly awry, at times being retro-peritoneal, occasionally in the lateral gutter, and not infrequently at the site which could easily have become anatomically normal had the rest of the development progressed as it should have. In none of the three patients in whom we were privileged to see the ovaries were the ovaries anything but well developed and healthy looking. This may account, as it assuredly does, for the tendency of the external

*Read before The Columbus Medical Review Club.

genitalia and accessory sex structures to be well formed. This also accounts for the rather strongly developed feminine characteristics usually presented by these individuals.

Stimulated by the urologist to investigate the status of the urinary tract, we have found the last two in this series to have a congenital absence of one kidney. The embryological fore-runner of the Mullerian ducts also contributes to the development of the urinary tract—hence explaining this rather commonly associated defect. No data is available at this time on the first two patients.

Both the urinary and generative organs develop from the primitive segment stalls. The completely developed genital and urinary organs in the adult are preceded by a group of paired embryonic structures—pronephros, mesonephros, metanephros and the wolffian and mullerian ducts.

Many methods have been devised for the surgical correction of this defect. The operative creation of a perfectly normal vagina is impossible. This does not, however, detract from the attempt to provide a functionally satisfactory canal which may be successfully used for marital relationships. The creation of an epithelial-lined tube which may thus be used is not only possible but can be made relatively simple. Its successful accomplishment depends upon a knowledge of the anatomy of the parts and some experience in gynecologic plastic surgery.

The first attempt to create an artificial vagina was made by Dupuytren in 1817. He attempted reconstruction by making an opening between the rectum and his surgical channel. Patency was maintained by gauze packing until epithelialization could take place. Later the fistula was closed. This method was not practical or satisfactory.

Machenrodt in 1911 attempted to transplant vaginal mucosa from another patient. This proved unsatisfactory.

J. F. Baldwin in 1907, after having tried the sigmoid, (1903) perfected the use of the lower ileum. This operation has been used in many clinics and has accomplished a very practical result. In two of our cases this procedure was carried out and proved to be most satisfactory both from the standpoint of the patient and the husband. The disadvantage naturally lies in the magnitude of the operation and the attending surgical risk. The importance of this risk cannot be appreciated by the patient and should not be assumed by the occasional operator. Briefly stated, the technique consists in the following:

1. Preliminary incision and blunt dissection of a channel from the external skin area up between the bladder and rectum as far as the pelvic peritoneum.

2. The abdomen is then opened, surveyed and a twelve inch loop of lower ileum isolated with its mesentery which is delivered as a loop down

to the margin of the external genitalia. Here it is sutured to the skin. Both barrels of the loop opened and packed lightly with gauze.

3. The continuity of the bowel is reformed by side to side anastomosis and abdomen closed.

4. Ten days later the septum between the two lumens of the loop of ileum is destroyed by clamp pressure, thus establishing a single tube.

The end result is a canal lined with a moist type of mucous membrane which is apparently quite satisfactory. One objection has been raised—namely, too much mucoid discharge. This has not been encountered in our patients. Needless to say this operation does have a magnitude that warrants serious consideration before being attempted and all parties concerned should be fully informed before proceeding.

In 1911 Schubert described a method utilizing a portion of the rectum and reconstruction of the sigmoid to the anal canal by anastomosis. This is a formidable operation and has not been widely adopted.

Recently the transplantation of flaps derived from the labia has been tried by Bumm, Puppel and Graves, but because of the obvious deformity and scar formation this method has not received much consideration.

Implantation of fetal membranes to line the new channel has been advocated by Burger. This has obvious disadvantages both as to the source of material and the usual unwillingness of the membranes to accommodate themselves successfully.

Thiersch grafts of skin have been used by Councelor and others and here too difficulty has been encountered.

Various methods employing the basic principle of using skin flaps from the inner thigh have been advocated by Beck, Frank, Geist and Grad. One of the originators of the Frank-Geist operation has recently reported the simple procedure of direct, constant pressure upon the thin-skinned dimple, when present. This necessitates complete cooperation by the patient and would seem theoretically feasible but practically rather difficult to accomplish because of the time element (months) and discouragement upon the part of the patient. In addition, we do not believe this method could have accomplished much in the type of patient we have seen. When total absence of the vagina is encountered, little or no dimple of the skin has been found and the dissection of the new vaginal channel has shown this space between the bladder and rectum to be rather firm in the first two inches of depth.

In the last case in this series we decided to use the inner thigh flap transplantation method. Prior to operation we checked the blood and urinary estrin on several occasions and found this to be present in normal amounts. I hardly think this necessary if the patient possesses well

developed secondary sex characteristics and femininity. A glass plug was used, over which flaps were sutured with the skin surface next to the glass. After preliminary preparation of the channel these flaps were turned into the space with the plug in situ. The flaps remained with their pedicles for ten days at which time the pedicles were cut and defect closed by suture. Some superficial infection was encountered and we were apprehensive for several days, fearing we might lose our grafts. This cleared, however, and healing occurred with a minimum of scar. When the patient was released from the hospital she was provided with a plastic plug to obviate the possibility of breakage and when seen some weeks later was perfectly happy and eagerly contemplating her coming marriage.

SUMMARY

Four patients with total congenital absence of the vagina have been reviewed. In two of these patients the method of utilizing a loop of the lower ileum as advocated by Baldwin was employed with entirely satisfactory results. The magnitude of this procedure has been discussed. The fourth patient was subjected to the simple utilization of suitable skin flaps obtained from the inner surfaces of both thighs. This method of reconstruction has little if any surgical risk and the end result would seem to be entirely satisfactory.

Recognition of Coronary Insufficiency

In no other disorder is a good history of more help than in the recognition of disturbances in coronary blood flow. Obviously, this cannot be measured directly; and the most reliable guide is the ability of the heart to perform its work, expressed in terms of the patient's sensations. No matter how well the story of disability is related by a medical colleague, it cannot give the same information as when it is obtained directly from the sufferer. The impression gained by the physician from careful questioning of the patient often furnishes the clue to the entire situation. In addition, such a personal interview establishes a relationship which is invaluable throughout the subsequent period of management. The patient's account of his trouble may be the only available evidence on which to base an opinion, since the examination not infrequently reveals no signs of disease. Sometimes the electrocardiogram shows changes which at once fix the site of the difficulty. But here, as in the case history, the attending physician should make the interpretation. He must be aware of the wide range of the normal so that the patient is not induced to live the life of a cardiac invalid because of some minor graphic variation. On the other hand, the recognition

of significant early abnormalities may lead to preventive measures of vital importance. The use of precordial leads has added to the accuracy of diagnosis in doubtful cases.

Cardiac enlargement, occurring in the absence of hypertension or of valvular deformity, should always arouse the suspicion of coronary disease. Unless enlargement is marked, percussion or location of the apex beat cannot be relied upon for the determination of the size of the heart and recourse must be had to orthodiagraphy or teleroentgenography. The establishment of normal standards for heart size, as indeed for any biologic variable, is difficult, and the results are subject to error. In my judgment, the most useful measurements is the transverse diameter as determined in the orthodiagram or teleroentgenogram, compared to the predicted transverse diameter computed by the Hodges-Eyster formula, which takes into account the weight, height, and age of the subject.* If the actual transverse diameter exceeds the predicted value by more than 1 centimeter, it is safe to infer that the heart is enlarged. This figure affords a greater degree of latitude than the 5 mm. excess permitted by Hodges and Eyster; but a wider range lessens the likelihood of labeling a large normal as pathologic. The cardiothoracic ratio, still commonly employed, has been an unreliable index in our hands. A similar opinion has been expressed by others.

In certain cases it is difficult to determine the source of discomfort in the chest, particularly when this is of a painful nature. Such discomfort may be due to a variety of causes, some of them thoracic, others abdominal or systemic. A number of procedures have been devised which increase the work of the heart under conditions which make possible an indirect estimate of the coronary reserve. We have been particularly concerned, in the department of cardiology, with the development of the anoxemia test. In our experience and in that of other observers the test has been of practical use; and, if carried out according to directions, it is without hazard. It consists of permitting the patient to breathe a mixture of 10 per cent oxygen and 90 per cent nitrogen for twenty minutes or until cardiac pain appears. Measurements of electrocardiograms, taken at intervals during this period, reveal in patients with a diminished coronary reserve characteristic changes which are not seen when the coronary blood flow is adequate.—Robert K. Levy, M.D., New York City; *N. Y. Jour. of Med.*, Vol. 43, No. 19, October, 1943.

*Rapid calculation of the predicted transverse diameter can be made by using a special slide rule, manufactured by the Picker X-ray Corporation, New York City.

Urticaria and Angioneurotic Edema

A Summary of Our Present Knowledge

MILTON B. COHEN, M.D.

PATIENTS with chronic urticaria and angioneurotic edema present one of the most trying and difficult problems confronting the physician. While this condition is dangerous only when the lesions occur in the larynx or upper trachea, the itching causes great discomfort and interferes with sleep and the large swellings frequently incapacitate the patient because of swollen hands or feet, or by making it impossible to work because of his appearance.

When the nature of the clinical allergies was elucidated, and skin tests were developed to aid in the etiological diagnosis of asthma and hay fever, it was assumed that the same methods would be of use in urticaria and angioneurotic edema. Experience has shown, however, that this assumption was not justified by the results obtained. In only an occasional case are skin tests found to be of assistance in determining the etiology.

The lesion in the clinical allergies is a hive which results from the interaction of the allergen, its specific antibody and the tissue cells. This interaction causes a toxic substance which resembles histamine in its pharmacological action to be freed from the tissue cells and it is the toxic substance, probably identical with the H substance described by Lewis, which causes the reaction with the resulting hives. The allergen, contact with which initiates this reaction, can as was pointed out above, usually be identified by scratch or intradermal tests in asthma and hay fever but not in chronic urticaria and angioneurotic edema.

This discrepancy requires explanation if we are to discover better methods of dealing with these conditions.

There are two possibilities.

1. That chronic urticaria and angioneurotic edema are not allergic; that the H substance release responsible for their production is not initiated by an allergen, or

2. That these conditions are allergic and are initiated by specific allergens but that we do not know what the allergens are, or do not have them available for skin testing in the form in which they are active under clinical conditions.

What is the evidence for the first explanation?

Angioneurotic edema and urticaria occur so frequently in persons with neurotic tendencies that many physicians consider them to be nervous in origin. In addition hives, indistinguishable from those of true allergy, can be produced experimentally in normal skin by testing with a

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cholinergic drug such as eserine. This drug when applied locally, causes the cells to free H substance which initiates a wheal. There is no evidence, however, that direct stimulation of cholinergic nerves will cause urticarial reactions. In the present state of our knowledge, therefore, we must conclude that, while there is a large psychosomatic element in the etiology of urticaria and angioneurotic edema, these influences alone cannot be demonstrated to be the chief etiological factor in most cases.

What evidence do we have for the second explanation?

Many cases of acute urticaria follow the ingestion of some food such as crab and lobster. In these, the urticaria comes on within a short time after the ingestion of the food, and clears up within a few days. The etiological diagnosis is evident and is usually made by the patient. In these cases, skin tests are almost always positive.

In addition, it is not infrequent to see urticarial lesions in patients with asthma and hay fever, in whom the urticaria is caused by some food or inhaled allergen which is readily discovered by skin tests.

Many patients report that their attacks are initiated by colds, by constipation or are associated with the menstrual period. The relationship between these conditions and the urticaria and angioneurotic edema seems well substantiated by the history. Closer questioning, however, frequently reveals the following: The patient gets a "cold" or is constipated or has menstrual cramps. The symptoms accompanying these conditions are treated with aspirin, alkalizer, or some cathartic, midol, anacin or one of the other so-called remedies which are urged on all of us over the radio. The hives are demonstrated by clinical experimentation to occur as a result of allergy to a drug allergen. Coal tar products are the ones most often implicated. The sensitivity results because these patients have in their bodies, chemical methods which combine

these coal tar drugs with tissue proteins to form an antigen. Antibodies are then formed which react specifically with the entire protein-drug conjugate.

Since we do not know the chemical composition of this protein-drug conjugate, we cannot use it for skin testing. We, therefore, are unable to demonstrate the etiological relationship of drugs to allergic reactions by skin tests but must observe these relationships by clinical experimentation.

In the present state of our knowledge as reviewed briefly in the foregoing discussion, we can assume that urticaria and angioneurotic edema are true allergic conditions, mediated by an antigen antibody mechanism. The etiological factors are often coal tar products. Psychosomatic factors may play a part in making the reactions more severe and in their continuance after contact with the specific allergen has been eliminated.

How should one manage cases of urticaria and angioneurotic edema? Decide from the history whether the patient has:

- a. Acute urticaria and angioneurotic edema due to some food.
- b. Urticaria and angioneurotic edema in association with respiratory allergy.
- c. Chronic urticaria and angioneurotic edema without associated respiratory allergy.

Since the etiological agents in cases in the first classification are usually obvious from the history and are known to the patient, and those in the second classification can be discovered by the methods commonly used in studying allergic patients, we shall devote our attention to the management of those of the third group.

Many patients with chronic urticaria and angioneurotic edema without associated respiratory allergy, can be shown to be sensitive to coal tar products. Most of the analgesic and soporific drugs and some of the cathartics used today are coal tar derivatives. In addition, artificial colors and flavors are widely used in tooth pastes, mouth washes, candies, soft drinks, chewing gum, condiments, various liquid medicines and in the coatings of pills. All of us ingest some of these products every day.

The first thing to do with the patient is to free him of all ingested coal tar contacts for a period of at least two weeks. This will require considerable explanation to and guidance of the patient. Over half of the cases will lose their symptoms and will remain free. The rigid restrictions may then be relaxed and various food sources of coal tars allowed from time to time until symptoms recur following the addition of some type of product or until the diet is unrestricted. The causative factors in most cases will then be demonstrated to be the cold, cough or purgative remedy which has been used to treat some fairly common symptom.

During the time required for these experiments it is necessary to relieve the patient of the distressing symptoms. Epinephrine and ephedrine are the medicines of choice as in other allergic conditions. It must be remembered, however, that ephedrine is usually prescribed in combination with some barbiturate and that these should be avoided. Sodium bromide is the hypnotic choice. It may be combined with ephedrine in a prescription such as the following:

Ephedrine Hydrochloride or Sulfate...gr. viii
Sodium Bromidedr. iiss
Syrupfl. oz. i
Distilled waterfl. oz. iv

Sig: 1 teaspoonful every 4 hours.

Careful attention to the management described above will enable the physician to relieve more than half of the cases of hives which consult him. In the remainder, those in which the etiological diagnosis cannot be made, treatment by avoidance cannot be carried out. What can be done for these patients?

If our conclusion that these cases are allergic but that the antigen is unknown is valid, we can still apply immunological methods to their treatment. The following chart illustrates the genesis of an allergic reaction.

Tissue cells+allergen—H substance—reaction (hive).

Since we cannot prevent the release of H substance by removal of contact with the offending allergen, we must attempt to neutralize the H substance so as to avoid the effects of its release. Attempts have been made to do this by increasing the tolerance to histamine by the injection of increasing amounts of this substance. Despite such treatment, however, the skin threshold of reactivity to histamine is not reduced and since this is the only method which we have of determining tissue reactions to histamine, we must conclude that injections of this substance are of little or no value. This is not surprising when we recall that histamine is a molecular substance which is rapidly dialyzable and that such substances are not capable of acting as antigens.

Histamine may however, be conjugated to some protein in a manner analogous to that which occurs naturally in the production of antigens from drugs. Such a preparation was produced by Fell and his associates and it has been shown that both experimental animals and men injected with it, develop antibodies which are specific against histamine. Animals so injected are partially protected against anaphylactic shock and definite reduction in the skin threshold for histamine occurs in patients to whom it is administered.

Our own experience with this material* which will be published in detail elsewhere, indi-

*This histamine conjugate has been finished under the name Antigen H. for experimental use by Parke, Davis & Co.

cates that it has a definite place in the management of cases of unknown etiology since it produces tolerance for histamine and thus protects against the histamine portion of the H substance which is released during the allergic reaction.

By the use of this material, one half of the cases of urticaria and angioneurotic edema not due to coal tar or other drug allergy can be relieved provided attention is given to the control of the psychosomatic aspects of the patient so as to reduce the reaction threshold.

SUMMARY

1. The most troublesome cases of urticaria and angioneurotic edema occur in patients without associated respiratory allergy.

2. Skin tests are useless in the majority of these cases.

3. Over half of these cases are due to coal tar sensitivity and can be relieved by elimination of the offending substance.

4. One half of the remainder can be relieved by immunization with a histamine conjugate together with attention to the psychosomatic needs of the patient.

Complications of Electroshock Therapy

Fractures of the Dorsal Spine.—One of the most serious complications is fracture of the thoracic spine. In a series of 1,750 cases we found 39 cases of fractures of the thoracic spine. This is an incidence of 2 per cent.

Following the report of Polatin and his associates in which they reported an incidence of 43 per cent of vertebral fractures in patients treated with metrazol convulsion therapy, techniques were introduced to prevent or reduce this high vertebral fracture rate. This led Hamsa and Bennett to advocate the use of spinal anesthesia, which however, was not found suitable. Later Bennett introduced curare. Rosen, Cameron, and Ziegler tried beta erylthroidine hydrochloride. More recently Yaskin has advocated the use of magnesium sulfate. We have been using sodium amytal intravenously for the same purpose.

Although the curare group of drugs effectively prevents fractures, they nevertheless apparently cause respiratory and cardiac embarrassment (8 out of 18 cases in one series) so that the method is not without danger. Fifty per cent of the eight electrofit cases so far reported to have died had received curare prior to the electrofit. This is an unusually high percentage considering that relatively few patients receive curare.

Vertebral fractures caused by either metrazol or the electrofit are rarely severe and no consequences have so far been found. Worthing and Kalinowsky studied eight of their most severe fractures produced several years ago by metra-

zol. These had multiple fractures. They were studied neurologically, radiologically, and orthopaedically. All of the fractures had healed completely. There were no atrophic bony changes. The neurologic examination was entirely negative and there were no orthopedic complications.

Other Fractures.—A number of fractures of the long bones, hip bones, clavicles, scapulas, and mandibles have been reported. The incidence of all surgical complications, including fracture of the spine, was found to be 2.9 per cent in 491 cases reported by Malzberg. Surgical complications in metrazol therapy were present in 3.9 per cent of the cases. The methods that are now being used to soften the convulsion and avoid spinal fractures also serves to avoid fractures of the other bones. Although, in general, fractures of the limbs are less alarming than those of the spine, when they occur in elderly people, they are apt to be very disabling. Usually fractures of the limbs, shoulder and pelvic girdle bones are produced by strong, wild swinging of the extremities during a convulsion. If these movements are prevented by pressure on the upper and lower limbs, so that they are held in extension and adduction, practically all of these fractures can be avoided.

Early in the beginning of this method of treatment, a large number of dislocations of the jaw occurred. Although a dislocation of the jaw is very easily reduced, there is hardly any excuse for it to occur if the patient's jaw is properly handled during the fit. The electrofit convulsion differs from all other types of convulsions in that it is initiated by strong generalized flexion spasm, as soon as the current passes through the electrodes. This spasm is due to direct stimulation of the motor neurons. It is more or less instantaneous and consists of: (1) closure of the eyes; (2) closure of the mouth; (3) flexion of the forearms on the arms; (4) flexion of the thighs on the pelvis and the legs on the thighs. Following this the tonic phase of the convulsion appears. The tonic phase may occur immediately after the flexion spasm or after an interval of one to ninety seconds, during which the patient is in a state of apnea. The tonic phase begins with wide opening of the mouth, often with an expiratory cry and by turning of the eyes and head to one or the other sides and finally by participation of the limbs. Dislocation of the jaw occurs if, in the beginning of the tonic phase, the jaw is allowed to open widely. It can be avoided by holding the jaw firmly at this time.

A number of other minor bone, muscle, and joint complications have been reported, such as: backache with no fracture, activation of arthritis, activation of subdeltoid bursitis, and painful muscles.—David J. Impastato, M.D. and Renato J. Almansi, M.D., New York City; *N. Y. S. Jour. of Med.*, Vol. 43, No. 21, November, 1943.

Silicosis

JOHN H. SKAVLEM, M.D.

LIFE itself is a hazardous occupation. In fact life can be defined as the battle of the human body to function normally against the efforts of its environment to alter such performance. The hazards of the environment are either the invasion of the human body by other living organisms, large or small such as parasitic worms or insects, microscopic germs, the ultra microscopic virus, or insults of physical and chemical changes so severe as to alter the structure and function of the body. Disease produced by germs is most common. The physical and chemical causes of sickness are represented by severe alterations of temperature, humidity or pressure to the body, or the irritation of noxious substances whether they be gases, fluids or solids. The portal of entry to these chemical or physical irritants may be on the skin surface or through the open avenues of the digestive and breathing apparatus of the body.

INHALATION OF HARMFUL DUSTS

We have chosen for our discussion the hazard of the inhalation of certain harmful dusts into the body—namely the disease silicosis. It is evident that the damage done in the body by fine particle of dust must be either physical irritation or chemical change. The portal of entry into the body for these harmful particles is the breathing apparatus. The dust taken into the body by the digestive tract through swallowing does no damage and is soon eliminated. The lungs are the battle ground and bear the scars of combat. When we consider the delicate structure of the lungs we are tempted to wonder how they continue to withstand disease so long, in the face of daily onslaught of many hazards. The lungs, no doubt, are submitted to more insults from environment than any other organ of the body. The air we breathe, varying in temperature from far below zero to much over a hundred degrees, always stocked with plenty of dust, from field, street or factory and never free from rich pollution of bacteria, needs much preparation before it is safely utilized in the lungs. Add to this the artificial hazard of abnormal increases of dust found in certain occupations and the seriousness of the threat to health increases. Fortunately for us the lungs are well protected against invasion of foreign bodies, be they living germs or inert particles. The defenses start at the nostrils where we find stiff hairs forming a fence. Beyond them the nasal secretions catch and discharge

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volumes of the dust. Deeper in the throat, wind pipe or trachea and bronchial tubes, the lining membrane is covered with fine hair-like processes called cilia which wave back and out into the mouth much more of the invading substances. Even more effective than all of these defense mechanisms are the lymphatics and lymph nodes which carry a vital fluid throughout all the tissues. This fluid and its cells including the phagocyte or scavenger cells, gathers up foreign materials of all sorts from the tissues and deposits it in the lymph glands which act as filters to check the dirt from getting into the blood. By these defenses, when acting normally, we are spared diseases in the lungs.

As industrial hygienists we must recognize that the peril of inhaling harmful dust depends on two variable factors;—the specific susceptibility of the worker to the dust inhaled and the degree of exposure.

WIDE VARIANCE IN AMOUNT OF INJURY

Physicians and workers have long observed and recognized that individuals exposed to the same dust hazard present wide variance in the amount of injury suffered. After twenty years of work in a foundry, ten individuals will suffer no lung injury and one fellow will be the victim of serious respiratory disease. Certain important factors in this difference of susceptibility can be answered and the knowledge fruitfully applied by physicians. We regret that some factors remain unknown. Among the most important factors influencing susceptibility of an individual to injury by harmful dust are age; nationality; certain anatomic peculiarities of the breathing mechanism, which have just been mentioned; previous exposure to dust; the presence of pulmonary disease, especially tuberculosis and emphysema; the presence of certain heart conditions; general health and the individual's intelligent willingness and ability to cooperate with fellow workers in measures of prevention.

Read before All-Ohio Safety Congress, Columbus, Ohio on April 21, 1943.

It is certain that any anatomical deformities or peculiarities in nose, throat or bronchi, which make the entrance of dust into the lungs easier increases the individuals threat to injury. This may be due to dry mucous membranes, lack of hairs in the nostrils, lack of secretion from the mucous glands, clogged lymphatics and lymph nodes or already burdened phagocytes. It is easy to understand by laymen, as well as physicians, that a lung previously injured by disease, be it long continued pneumonia, abscess, asthma, chronic bronchial infection or tuberculosis, will be impaired in its ability to rid itself of harmful dust. Likewise a lung whose capacity to function has been reduced by chest injury, scarring or stretched air cells (emphysema) can tolerate less injury from dust than a normal one. Age is a factor only because years add, in a cumulative way, the insults suffered by the lungs from infections and inhalation of dust and noxious gases from all sources. Therefore, the tolerance for harmful dust decreases as age increases. The rule of susceptibility based on nationality parallels that for pulmonary tuberculosis. Negroes, Indians and Mexicans all present an unusually high mortality from tuberculosis and for that reason offer poor resistance against injury from harmful dusts. The same rules as apply for general good health prevail for the problem of susceptibility to dust exposures. Poor economic states, crowded living conditions, poor hygienic and sanitary surroundings in home or factory, chronic debilitatory diseases, all lower resistance to tuberculosis and other lung infections and so increase the hazard. But no one factor in the problem of individual susceptibility to injury from dangerous dust is as great as the persons willingness and ability to cooperate in a sound prevention program.

The degree of injurious exposure from dangerous dusts depends on several factors. The significance of each factor is very important in combating the evil to be overcome. In the study of the dust we must consider composition, distribution, concentration, size of particles, physical characteristics, duration of exposure.

ACUTE SILICOSIS

First we can state definitely that any dust capable of producing permanent changes of scar or fibrosis in the lungs must contain silicon. Silicon is the recognized, condemned, offending element in the dust. Certain forms of silica are more injurious than others. Until recent years we held that only the free forms of the mineral silicon could cause tissue damage. Now we know that some of the combined forms of the mineral, the silicates, are capable of this injurious action. The one silicate which has been so proven to be injurious is magnesium silicate of asbestos. A few other silicates are regarded with suspicion but remain definitely unconvicted. The hazard is

further modified by admixture of the silicon with other dusts. There is evidence to show that alkalies increase the harmful properties of silicon and speed up the damaging changes in the tissues of the human body. This may explain the so-called cases of "acute silicosis", where the time of exposure has been only a few months instead of the usual five to twenty-five years. I have recently seen four of such acute silicosis cases, verified by post mortem examinations, where the exposure history was measured in months. All of these acute cases occurred in soap powder workers and the mixture with alkalies was evident. There is more abundant evidence to show that inert ingredients of dusts such as carbon, hematite (iron), aluminum and gypsum exert a favorable action in cutting down and inhibiting the damaging results of silicon to the body. Inhalation of coal dust by miners can produce anthracosis to such a degree as to render the lungs and lymph nodes black as the coal itself and yet the function of the lung be little impaired. If an aggressive lawyer could exhibit the organs of one deceased to the jury he might show them the black lungs of a miner and expound on the ravages of invading dirt, where the dust played no part in death, and yet in a true case of silicosis where death was directly caused by dust, he could exhibit little in the gross lung because the fatal damage in the tissues is studied through the microscope. Nevertheless, any dust that contains more than 10 per cent of free silicon or its dangerous silicate must be considered as a potential hazard in the atmosphere. In general foundry workers appear to face less hazard than workers in occupations having exposure to free silicon but not as safe as cement and lime workers or coal miners.

MINERAL ELEMENTS IN DUST

Specific gravity, size of particle and tendency of the dust to agglutinate determine how long it will remain suspended in the air. The factor of particle size is of primary importance. It has been determined that most particles smaller than one micron in diameter settle at a rate of from one to three feet per hour. Above sizes of five microns in diameter, specific gravity has more importance, for a specific gravity of seven the rate is sixty feet per hour, while quartz with a specific gravity of 2.6 settles at a rate of only twenty-five feet per hour. It may be stated that with the exception of fibrous materials, and this includes asbestos, any particle with a size greater than ten microns settles so rapidly that it plays little or no part in dust hazard. It is always to be remembered that the offending element silicon is only a fractional part of the foundry dust. The silicon being a hard, tough mineral, may exist in larger and heavier particles than other mineral elements in the dust.

Hence the silicon particles may settle faster leaving the atmosphere dust composed mostly of nonsilicon particles. Furthermore, dust samples taken from rafters in the foundry may yield a high percentage of silicon due to this accumulative concentration of the heavier particles in settling faster, and the atmospheric dust may contain only a relatively small percentage of silicon. In order for a dust sample to be a true index of the hazard to the worker it must represent that atmospheric dust that the worker inhales. Size of the particles also greatly influences the ease with which it reaches the lungs. In general it can be said that few particles greater than ten micron in diameter reach the fine air cells of the lungs. Asbestos fibers, however, may offer an exception to this rule. The danger of the silicon particles increases inversely with its size. Gardner has shown that silicon dust particles with diameters less than three microns are particularly vicious in their ability to damage the tissues of the body. This may depend not only on the ability of the tiny particles to reach the lung but also on the fact that the damage wrought in the body is not all due to physical irritation but also chemical changes. This is shown by the fact that the changes of silicosis are found not only in the lungs but also in other organs such as the spleen where it is carried in chemical combination by the blood.

CONCENTRATION OF HARMFUL DUST

The concentration of the harmful dust is necessarily a most important factor. This is determined by dark field dust counts which express the number of silicon particles per cubic foot of air. The recent untimely death of Donald E. Cummings in an airplane crash, focuses our appreciation of the great work he did in measuring the hazardous concentrations of silicon dust. His so-called "Primary Threshold" indicates that a concentration of five million particles of silicon between 0.5 and 10 microns in diameter constitutes the upper limit under which a normal man may work for many years without impairing his health. He further established his "Secondary Threshold" which is a level of concentration of silicon particles beyond which silicosis and disability are inevitably contracted after an exposure of a few years. This Secondary Threshold he fixed at a level which exceeds 15,000 to 20,000 particles per cubic foot of air and stated, "As a broad generality it may be assumed that men with healthy lungs may work in silica without great danger for forty years at concentrations not exceeding the Primary Threshold or for ten to twenty-five years in concentrations between the Primary and Secondary Thresholds while two to five years exposure will be dangerous if the concentration is above the Secondary Threshold".

The disability resulting from silicosis varies

from no disability to permanent total with certain death. It is to be remembered that a diagnosis of silicosis does not necessarily imply a disability. This is a point which always gives much trouble in compensation adjustments. A worker has an X-ray of the chest taken. A diagnosis of silicosis is made and the worker is told he has silicosis. He naturally believes that this is a disease in the lungs which is serious and constitutes a disability. A lawyer enters the picture and the setting is complete for an argument. But the argument should always be an open unbiased study of the facts, considering the factors of exposure, the extent of the silicosis and the degree of disability resulting. The degree of exposure is determined by records of employment and study of the working environment. This is the responsibility of management and industrial hygienist. The diagnosis and degree of disability is a problem for physicians. In general, it can be said that simple silicosis represented only by scattered discrete small nodules with no coalescence in the lungs, constitutes no disability. Beyond this we come into the degrees of disability varying with the extent of coalescence of the nodules and the amount of pulmonary emphysema. Finally, when infection is superimposed on silicosis the degree of disability is great and permanent. In judging disability from silicosis it must always be borne in mind that symptoms referred to the lungs may also be present from causes other than the silicosis. But these are technical medical problems.

The law governing silicosis in Ohio states that there is no compensation for any disability other than total. In my judgment this is unfair and unjust. We see many workers with sufficient silicosis to make them unable to carry on their work as molders and yet perfectly able to carry on in light occupations outside the foundry. The loss of one hand is recognized by law as a partial disability and so too the loss of thirty per cent of breathing capacity should be admitted.

SAFETY MEASURES

Silicosis can be eliminated from industry. Engineers can institute safety measures to cut down exposure in the work room. Physicians can choose workers who can safely be employed in the foundry and weed out those who had better stick to the farm. Finally, and most important, the worker must play his part by adhering to the rules of safety and willingly cooperate with the physician in following general rules for health and submitting to repeated medical examinations for the purpose of detecting danger signs of damage and threatened disease.

Life at its best is dangerous as an occupation. Let us all make it safer and happier where we can.

Heart Disease Secondary to Syphilitic Aortitis

RALPH H. FULLER, M.D. and HENRY W. RYDER, M.D.*

Case 185581: A 30-year-old colored woman, had enjoyed good health until five weeks prior to hospitalization, at which time she began suddenly to suffer exertional dyspnea, orthopnea and precordial pain. The pain was sharp but not intense. There was radiation of the pain, usually to the left arm and less frequently to the right arm. The pain occurred usually during periods of activity, but also when the patient was at rest; it appeared intermittently and was never long sustained. Dyspnea and orthopnea increased rapidly in intensity. Swelling of the ankles became apparent toward the end of the second week following the onset of illness. Paroxysmal nocturnal dyspnea occurred the night before hospital admission. There had been several attacks of syncope during the preceding afternoon, and following such an attack which occurred the following morning, the patient was brought to the hospital.

The patient was a well developed, moderately well nourished, orthopneic, acutely ill, colored woman. The face presented an anxious expression. The temperature was 100° F; the pulse rate 154; respiratory rate 40; the systolic blood pressure 134, and the diastolic pressure 50. There was marked dependent edema of the lower extremities and slight cyanosis of the lips and nail beds. The pupils each measured 2 mm. in diameter, were slightly irregular and reacted sluggishly to light. The neck veins were distended. There was diminution of breath sounds and voice sounds at the right lung base and a few moist rales and rhonchi were heard at both bases. Prominent arterial pulsations were noted; a cardiac apical impulse was presented in the sixth interspace and in the anterior axillary line. Systolic murmurs were heard at the base and at the apex. The diastolic murmur at the base was heard in the second interspace to the right of the sternum, in the third and fourth interspaces to the left of the sternum and at the xiphoid. The first mitral sound was not abnormal. The murmurs at the base were more prominent than those at the apex. The heart rhythm was regular save for the appearance of occasional extra-systolic beats. There was moderate sacral edema. There were no significant findings on neurological examination.

The hemoglobin value was 12 gm.; the erythrocyte count, 4,170,000; the leukocyte count, 21,350; of the leukocytes, 93 per cent were neutrophils, 4 per cent lymphocytes, and 3 per cent monocytes. The blood urea nitrogen content was 27 mg./100 cc. The Wassermann reaction was reported anti-complementary; the Kahn, 2+. The report following analysis of a catheterized specimen of urine was as follows: specific gravity 1.016; albumen 2+; occasional hyalin and granular casts, occasional white blood cells and four red blood cells per high power field. A venous pressure reading of 10 cm. of water was obtained during the last day of life. Three electrocardiographic

tracings were made, the first on the day of admission and the others on succeeding days. The first tracing showed a heart rate of 120; sinus tachycardia; PR 0.17; QRS 0.12; definite Q3; ST 1,2,3 depressed, T1 inverted; T2 low voltage; T3 di-phasic. The second tracing showed a heart rate of 105; sinus rhythm with frequent ventricular extrasystoles; PR 0.17; QRS 0.11; ST 1,2 depressed, T1 inverted; T2,3 low voltage; Q3 deeper. The last tracing revealed ventricular tachycardia. A sedimentation rate reading obtained on the day of admission was found to be 6 mm. (Cutler).

The patient was given morphine, oxygen and digitalis, the last in amounts totaling 18 gr. in three days. Dyspnea became less pronounced and the patient's condition seemed to be improved. The temperature ranged between 99.3 and 101° F. On the third hospital day there suddenly occurred a generalized convulsion which lasted four minutes. Following this convulsion the patient was markedly cyanotic and dyspneic, the skin was cold and moist, the pulse rate was 160. The final electrocardiographic tracing, taken a few minutes later, revealed ventricular tachycardia. The patient became markedly confused and noisy. Slightly less than one hour following the first convulsion another generalized convulsion occurred.

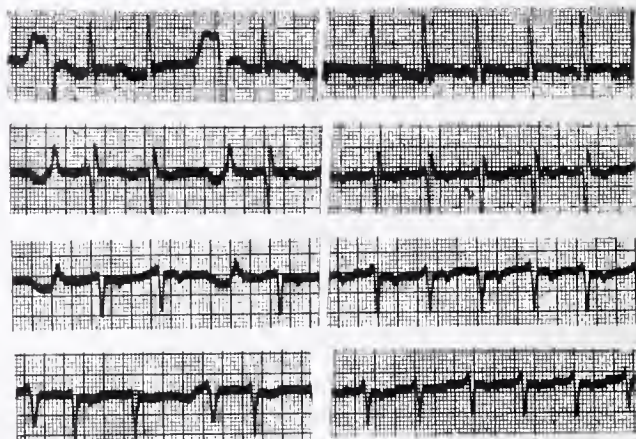


Fig. 1. Electrocardiograms, first hospital day on left; second hospital day on right. Leads I, II, III and IV F arranged vertically.

This lasted two minutes, the pulse rate rose to 200. Following this convulsion the patient became stuporous and the heart suddenly ceased beating.

CLINICAL DISCUSSION

The most common cause of a syndrome, appearing in a previously well 30 year old colored female, of rapidly developing congestive failure with death is luetic involvement of the aortic valve and coronary ostia; it remains to be seen from detailed study of the symptomatology, physical examination, laboratory findings and course whether this presumptive diagnosis accounts for the disorder in this case.

The sharp pain radiating to either arm and occurring at rest or with exertion is perhaps more typical of aortitis than of coronary insuffi-

This is the seventeenth of a series of "Case Records Presenting Clinical Problems," selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

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ciency. The syncope is of interest in that it is common in disease of the aortic valve, perhaps more so in aortic stenosis than in insufficiency; it occurs also in heart block with carotid sinus sensitivity, in epilepsy, and in paroxysmal cardiac dysrhythmias. It is not commonly a manifestation of coronary disease, although it has been reported as a symptomatic manifestation of occlusion of both coronary arteries.¹ Both of these symptoms are consistent with the initial presumptive diagnosis of luetic disease at the base of the aorta, but it will take other criteria to establish the diagnosis.

On admission the patient presented definite evidence of congestive failure. There was no neurological evidence of lues unless it be the slightly irregular pupils. The blood pressure and the prominent arterial pulsations suggest aortic insufficiency, although fever alone might cause such findings. The size and shape of the heart, and the location and character of the systolic and diastolic bruits, are nearly pathognomonic of aortic insufficiency. In the rare instances when these signs are present but post-mortem examination does not reveal typical changes in morphology of the aortic valve, luetic aortitis is almost always demonstrated and the clinical evidence of aortic insufficiency may be explained on the basis of relative aortic valvular insufficiency.

The fever, tachycardia, tachypnea, and changes in blood cytology are of interest, since there has to be considered pulmonary infection, myocardial infarction, and perhaps rheumatic fever in the differential diagnosis. Pulmonary infection is a frequent precipitating cause and concomitant finding of pulmonary edema of myocardial origin so that these findings cannot be considered as favoring myocardial infarction. Rheumatic heart disease is unusual with aortic involvement alone since the coronary ostia are not involved in this disease. There are no concomitant evidences of acute rheumatic fever in this case. Further, the serology was positive. This removes nearly the last lingering doubt as to the etiology of the disorder.

Arsenical therapy would be withheld on the suspicion of coronary ostia involvement with far less definitive evidence that there is here of such involvement, even without electrocardiographic evidence of myocardial disease. In this case, (see Figure 1) the deep Q3 suggests involvement of the posterior aspect of the left ventricle or the posterior third of the interventricular septum of the type seen in occlusion of the right coronary artery, but the absence of ST3 elevation and T3 depression, with similar changes in lead 2 and inverse changes in lead 1 does not allow of the diagnosis of recent acute posterior infarction. The cove-shaped T waves in lead 1 and 2 are

those seen in coronary disease, usually with involvement of the branches of the left coronary artery, but the absence of an elevated ST1 and ST2 is against recent anterior infarction. The complex changes are not those of lateral wall infarction. In cases of infarction of both the anterior and posterior walls, the tracings usually take on the characteristics of those found in the more recent infarction. The tracings therefore cannot be classified as typical of myocardial infarction; these are the bizarre tracings rather characteristically found in luetic occlusion of the coronary ostia.

Lues can cause gummata of the myocardium or diffuse myocarditis. Gummata are usually diagnosed by conduction defects, dependent on the localization of the damage, or abnormal silhouettes due to aneurysmal weakness of the ventricular walls, or the presence of tumor. In this case, no conduction defect was present. The cardiac shadow was not observed. Since there are more likely explanations of the findings than gummata or diffuse syphilitic inflammation of the myocardium these conditions need not seriously be considered.

During the two days the patient lived following admission, she received digitalis and developed frequent ventricular ectopic beats. The development of this dysrhythmia occurs in digitalis poisoning. However, the patient did not receive a toxic dose of digitalis. Ectopic beats occur in myocardial disease without digitalis poisoning. Their occurrence was rightly not considered a contraindication to the further administration of a drug which had apparently already caused some improvement of myocardial function.

The occurrence of a convulsion might make one think of cerebral embolism from a mural thrombus. The patient however had had previous syncope; there were no localizing signs of cerebral infarction, and a paroxysmal cardiac dysrhythmia was recorded during the episode; the change in circulatory dynamics due to the tachycardia in the presence of the damaged myocardium is quite sufficient to explain the presumed cerebral anoxia that led to the convulsions without the occurrence of embolic cerebral infarction.

In summary, this seems to be a rather typical case in which the patient died because of the damage that lues had done to her cardiovascular system. Presumably she had luetic aortitis, aortic valvulitis, involvement of the coronary ostia, and diffuse myocardial degeneration secondary to coronary ostial narrowing. No definitive evidence of a recent myocardial infarction, myocardial gummata, or luetic myocardial inflammation was elicited.

NECROPSY

N-43-279: The aorta showed no saccular dilatation but there was widening of the ascending

1. Leary, T. and Wearn, J. T., *Am. Heart J.* 5: 412, 1930.

aorta, arch and descending thoracic trunk. In this region the intima was yellowed and roughened; it presented numerous groups of longitudinally distributed wrinkles, deeper grooves and intervening hyalin plaques. Other intimal plaques, noted especially above the diaphragm but also encountered in the abdominal trunk, were more sharply defined, yellow and chalky. The mouth of the right coronary artery was completely obstructed; that of the left coronary artery was greatly narrowed. Save at the orifices, the trunk of each coronary artery was normally patent, its wall normally elastic and the intimal coat thin, smooth and pale. The heart weighed 480 gm. There was marked dilatation of the left ventricle. The aortic valve commissures were widened. The cusps were moderately contracted and showed cord-like thickening along each free margin. The other heart valves appeared normal. The myocardium was, for the most part, normal in texture and in consistence but characterized by marked pallor; presented in the interventricular septum, however, near the posterior margin and about midway between base and apex was an irregularly shaped, sharply defined region of red and yellow mottling. This lesion measured approximately 1.5 cm. in diameter. It should be noted that this lesion was situated in the region of distribution of the right coronary artery.

The lungs were markedly edematous and moderately reddened. The right lower pulmonary lobe presented a number of ill-defined regions of intense hemorrhagic stain, consolidation and increase in friability; these were roughly conical in shape with bases resting upon the visceral pleura. Within the substance of this pulmonary lobe casts of dry, friable blood clot were encountered in several small radicles of the pulmonary artery.

The peritoneal cavity contained approximately 300 cc. of clear serous fluid. The abdominal viscera, especially the liver, spleen and kidneys, presented changes characteristic of chronic passive congestion. No significant changes were encountered in the central nervous system.

Histologically the changes in the aorta were characteristically those of syphilitic aortitis. The myocardium exhibited widespread evidences of degeneration with more or less diffuse fibrous replacement; there was a localized region of acute myocardial infarction. There were also localized regions of acute hemorrhagic infarction of the right lower pulmonary lobe.

The final diagnoses were: syphilitic aortitis and aortic valvulitis with marked stenosis of the coronary ostia; myocardial hypertrophy; myocardial fibrosis; acute myocardial infarction; cardiac dilatation; visceral evidences of congestive heart failure; pulmonary embolism with acute pulmonary infarction.

COMMENT

The initial lesion of syphilitic aortitis was presumably established in the ascending aorta. The process spread downward to cause dilatation of the aortic ring, characteristic changes in morphology and function of the aortic valve. With aortic valvular insufficiency there was a demand for more work on the part of the heart; myocardial hypertrophy occurred. The aortic lesion encroached upon and began gradually to narrow the mouths of the coronary arteries. In this instance, however, the mouths of the coronary

arteries were not equally affected; before the mouth of the left coronary artery was greatly narrowed, that of the right coronary was almost completely occluded. Widening of anastomoses between the coronary arteries may have occurred so that eventually all parts of the heart were supplied with blood which passed through the mouth of the left coronary artery. Finally, narrowing of the mouth of the left coronary artery led to myocardial infarction in a region which originally and normally was supplied with blood entering the coronary system through the mouth of the right coronary artery.

The heart showed no signs of mural thrombosis. The infarct was so situated, however, that mural thrombosis might have occurred in either or both ventricles. Presumably it did occur on the right but became detached and fragmented; fragments were carried in the pulmonary circulation to become impacted in various radicles of the right lower pulmonary lobe. There had been progressive heart failure; the lungs were passively congested. Pulmonary embolism led to acute pulmonary infarction.

It seems quite probable that cerebral anoxia played a role in the production of the clinical syndrome.

Prostatic Cancer

A second follow-up study conducted on a series of patients treated by orchiectomy for prostatic cancer gives continued evidence of the value of this form of treatment.

Forty-five per cent of the patients remain free from symptoms twenty-one to thirty-six months after orchiectomy, but twenty-one cases previously reported as showing favorable response have had recurrent symptoms of advanced disease, and several of these are dead. The increasing incidence of delayed failure in this series suggests that eventually all cases may fall into this category.

It is evident that hormone therapy increases the life expectancy of patients with prostatic cancer by causing a suppression of carcinogenic activity for temporary but varying periods of time, and this temporary control of the neoplasm is accompanied clinically by a period of relief from symptoms resulting from the malignant disease.

It would seem logical to conclude that the maximum benefit to the patient may be derived by delaying hormone treatment until indicated by the onset of symptoms arising from advanced or metastatic lesions. Only in this manner can the longest period of palliative relief be assured.—Reed M. Nesbit, M.D. and Robert H. Cummins, M.D., Ann Arbor, Mich.; Jour. Ind. S.M.A., Vol. 36, No. 11, November, 1943.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

UNFORTUNATELY, lung cancer was not unmasked in far too many cases until long after the patient first visited a physician. It was possible in 125 case histories to determine how speedily a verified diagnosis was reached. Two facts stood out boldly. First, 36 per cent of the patients placed themselves under medical supervision at onset or within one month of the onset of symptoms. Second, the average patient consulted a doctor within three months of onset but did not receive benefit of a chest X-ray for an additional three months. The true diagnosis was not arrived at until nine months had elapsed from the time when the first doctor saw the patient.

The X-ray, without doubt, is by far the most valuable aid in apprehending pulmonary disease, but a distinction is necessary between its ability to yield presumptive and absolute evidence. In 98 per cent of this series of cases the initial film revealed trouble was present. An explanation of the delay in reaching a final diagnosis may be found in the fact that in the majority of instances the primary pathological process failed to produce upon the film or the fluoroscopic screen a shadow of itself. Those abnormalities that did appear were secondary effects due to the presence of the neoplasm and were of such variability as to be susceptible of a wide range of interpretation.

In 95 per cent of the cases it was possible to establish an unequivocal diagnosis during life, bronchoscopy being the leading method of obtaining tissue, and having been employed in 103 cases. In 39 other cases surgical exploration was used. Metastases were sectioned in a few cases, aspiration was the method in another small group, while the remaining 5 per cent were diagnosed only after post-mortem examination.

For a decade surgery has been available in the treatment of lung cancer. A creditable showing has been made during this pioneering period. For example, two out of every five cases surgically explored have been found to be free of extension of the cancer extrapulmonarily. The percentage of the entire group of verified cases for whom there was some hope of cure was 20 per cent. This seems an encouraging ratio when we recall that prior to 1933 there was no reason to regard the condition as anything but incurable. As a reward for our efforts, 20 patients, or 13 per cent, remain as the net salvage from the entire series of 156 verified cases of primary lung cancer, out of 32 individuals selected for an attempt at curative resection. These 20 patients

are all reasonably well and devoid of evidence of metastatic disease, while five of them can be referred to as "cures" insofar as they have now passed the five-year mark.

In considering practical steps toward bringing cases of lung cancer to light during their curable stage we can learn valuable lessons from the record on tuberculosis case finding. Physicians have been taught that if tuberculosis is to be discovered during its minimal stage it is necessary not to search for absent or insignificant symptoms and physical signs but to go immediately to the X-ray. The same can be said for the apprehension of early lung cancer.

How may the first doctor consulted set in motion this mechanism of early discovery? He may save valuable time for his patient if he remembers:

1. That cancer of the lung is now one of the most important diseases of the chest in patients within the age period from 40 to 65 years, particularly in males.

2. That many patients do seek help at a time when the lesion is still confined to the lung.

3. That symptoms and signs are either lacking or misleading in the early stages.

4. That the earliest lesions will in almost every case produce some telltale shadow on the X-ray film, and

5. Finally, that there are two methods available for clinching the diagnosis:

First, that the majority of lesions are visible bronchoscopically and accessible for biopsy, and second, that when the suspicion cannot be verified in this way, it is possible to explore the chest safely by surgical means, settle the diagnosis and carry out curative treatment if necessary.—Richard H. Overholt, M.D., *Diseases of the Chest*, May-June, 1943.

Examinations for Tuberculosis

In discussing the examination of children for tuberculosis, let it be stressed once again that any plan that embraces the young folks and neglects preemployment and periodic testing and chest X-raying of teachers, janitors, food handlers and other adult personnel is incomplete, unsound educationally, dangerous and destined to overlook probably the most potential as well as the most potent sources of tuberculosis within the institution. Additionally, a program that examines the positive reactor without tracking back to the source of his infection is equally unfinished and open to criticism.—Charles E. Lyght, M.D., N.T.A. Bulletin, May 1943.

New Facts About Trace Minerals

Experimental Manganese Deficiency: Metabolism in Zinc.

EXPERIMENTAL MANGANESE DEFICIENCY

Manganese is one of the trace elements essential to the maintenance of normal nutrition in animals. It is needed for normal reproduction, lactation, bone formation and growth (Shils and McCollum, *J. Am. Med. Assn.* **120**, 609 (1942)). There has, however, been considerable disagreement among various workers as to the exact manifestations of manganese deficiency in rats and mice. For instance, workers at the University of Wisconsin have reported decreased growth and disturbances of the estrus cycle resulting in sterility (Boyer, Shaw, and Phillips, *J. Biolo. Chem.* **143**, 417 (1942)), while Orent and McCollum (*J. Biol. Chem.* **92**, 651 (1931)) found no differences in estrus or growth but noted poor reproduction with high mortality of the young and poor lactation performance. Daniels and Everson (*J. Nutrition* **9**, 191 (1935)) obtained still different results; in their experiments there was a high mortality of the young animals as a result of congenital debility, but no disturbances of lactation or estrus. Shils and McCollum (*J. Nutrition* **26**, 1 (1943)) have recently reported an extensive study of manganese deficiency in rats and mice which was undertaken in an attempt to explain some of the contradictory results of earlier work.

Shils and McCollum fed their animals a solid basal diet low in manganese (0.2 to 0.3 microgram per gram) which had the following percentage composition: whole milk powder, 20; cottonseed oil U.S.P., 11.68; casein and dried yeast extract, 16; sucrose, 45; and a salt mixture, 2.82. Supplements were given to provide, per kilogram, 20 drops of percomorph oil, 200 mg. of choline, and 1 mg. of thiamine chloride. The drinking water was distilled and contained 1 ml. of 8 per cent potassium iodide solution per liter. The average manganese intake of an adult rat on this diet was less than 3 micrograms per day. When the ration was supplemented with manganese chloride at a level of 0.18 per cent, it supported excellent growth.

Young female rats fed the deficient diet for 2 months and then mated produced roughly the same number of litters as did a control group given the same diet with added manganese. However, only 1.5 per cent of the young born of deficient females were weaned. The behavior of the deficient mothers was normal in that they attempted to care for their young and were able to raise young rats transferred to them from normal females. When manganese was given to

the deficient mothers and new litters produced, half of the young were weaned. It is evident, therefore, that manganese is necessary for the production of viable young and that this aspect of manganese deficiency is reversible. There was no significant difference between the deficient and the control groups with respect to fertility or the estrus cycle. This result is different from that obtained by Boyer, Shaw, and Phillips. The authors point out that Boyer *et al.* used a milk diet lower in manganese, and suggest that the consequent more acute manganese deficiency may have caused the disturbance in estrus cycle noted in those studies.

Males born of mothers given the deficient diet during pregnancy were sterile and showed testicular atrophy. But young male rats born of normal mothers and fed the deficient diet from the time of weaning showed no differences from controls in growth, sperm motility, or testicular weight over a period of fourteen months.

That manganese deficiency can be produced in adult females was shown by placing 11 stock females, 5 to 6 months of age, on a deficient diet near the end of a pregnancy. All the young appeared normal and were weaned. Continued mating of these adult females on the deficient diet resulted in increasingly poor viability of their offspring.

The development of these young rats, and of those in the 1.5 per cent group which were weaned from the first experiment described above, was abnormal. Growth rate was poor, particularly among the males. Shortening and bowing of the forelegs were noted as gross skeletal abnormalities. The animals also frequently showed an ataxia, incoordination, and loss of equilibrium. Occasionally the affected animal walked in an essentially normal manner but soon fell over on its side or back and righted itself with difficulty. These symptoms increased in severity to about the eighteenth day and then the animals either died or recovered to a great extent. Since no definite pathologic changes were observed, the authors assumed that an acute "biochemical lesion" of some sort had been produced by the deficiency. A similar ataxia in the offspring of manganese deficient hens has been observed by Caskey and Norris (*Proc. Soc. Exp. Biol. Med.* **44**, 332 (1940)).

The poor growth rate referred to in the preceding paragraph had, as is stated, specific reference to animals born of manganese deficient mothers. No decrease in growth was noted in

the deficient rats of the first generation on the basal diet. However, when the calcium and phosphorus contents of the basic diet were increased, a marked decrease in growth rate occurred even among first generation males. Calcium and phosphorus behave similarly in intensifying the symptoms of manganese deficiency in chicks (Wilgus and Patton, *J. Nutrition* 18, 35 (1939)). It is suggested that these two elements make the manganese of the ration less available.

Arginase activity determinations made on 14 deficient and 13 control rats showed: (1) a decrease of approximately 50 per cent in the arginase activity in the livers of deficient rats, (2) that addition of manganese raises the activity in the deficient group to that of the controls, and (3) that arginase activity in the females is lower than that in the males of both groups. Although arginase is important in the formation of urea, Shils and McCollum, in confirmation of earlier work, could find no change of the nitro-gen excretion in manganese deficiency.

Similar experiments with white mice were reported to give results entirely comparable to those of rats.

This study demonstrates how complex the manifestations of manganese deficiency in rats are, and emphasizes how little is known about the fundamental biochemical abnormalities which are responsible for the changes. Shils and McCollum could not confirm the observations of other workers that deficient mothers behave abnormally toward their young or do not suckle normal young rats. There are no other essential points of difference which cannot logically be fitted into their conclusions that three distinct stages of manganese deficiency may be developed in the female. In the least severe stage, the deficient female gives birth to viable young which develop symptoms of ataxia and poor equilibrium. In the second stage, nonviable young are born. In the most severe depletion, the estrus cycle is disturbed and sterility results.—*Nutrition Reviews*, Vol. 1, No. 13, November, 1943.

Metabolism of Zinc

The element zinc is essential for the growth of rats and must also be required by man since it is known to be a constituent of the enzyme, carbonic anhydrase. The requirements are undoubtedly small and the element is widely distributed in foods. Egg yolk, meat, whole wheat, and particularly yeast and oysters are rich sources of zinc. Attention has been directed to the metabolism of zinc in the past more from the standpoint of toxicologic effects because of its use in industry than from a nutritional standpoint. More recently the daily use of zinc protamine insulin by diabetics has undoubtedly aroused ad-

ditional curiosity in the metabolism of zinc. Reports indicated that the usual human intake is approximately 15 mg. per day and that this would actually be increased by only 0.1 to 0.2 mg. by the use of zinc insulin preparations. The earlier work of Drinker, Fehnel, and Marsh (*J. Biol. Chem.* 72, 375 (1927)) has already shown that after a meal rich in zinc, the urinary excretion of zinc increases very little, although much additional zinc is excreted in the feces.

McCance and Widdowson (*Biochem. J.* 36, 692 (1942)) have experimented further on the metabolism of zinc by conducting balance studies on 12 individuals. The period of study on each level of zinc intake lasted for two weeks. Low zinc intakes (5 mg. per day) required special planning of the diet, moderate intakes (10 to 14 mg. per day) were supplied when white flour constituted nearly half of the total calories, and high intakes (20 to 22 mg. per day) were provided by including 92 per cent extraction wheat meal in the diet. The subjects were found to be in the zinc balance at all of these levels. There was no increased urinary output of zinc due to a higher intake; the higher excretion occurred in the feces. Zinc therefore resembles iron in that the kidneys seem to exert little or no regulatory control on the amount of the metal in the body. The absolute amount of zinc excreted in the urine per day was approximately 0.3 mg.

When additional zinc salts were administered intravenously in amounts ranging from 58 to 86 mg. of zinc in divided doses and over the course of two weeks, the subjects again established balance promptly and without change in the amount excreted in the urine. The authors suggest that the constant trace of zinc found in the urine may represent only a metabolic function of the kidney itself. The zinc may well be closely associated with plasma protein, a reasonable explanation for failure of extra zinc excretion in the urine when the plasma level is increased.

The latter thought led the investigators to examine zinc excretion in patients with moderate or severe albuminuria. They noted that such patients excreted much larger quantities of zinc in the urine, ranging from 1.0 to 3.8 mg. per day, although the amount of zinc was not well correlated with the actual degree of albuminuria. Balance studies on two patients with heavy albuminuria revealed that these subjects were in a negative zinc balance. Instead of a lessened excretion of zinc in the feces to compensate for the greater urinary output, the fecal excretion was essentially equal to the intake. The authors concluded that such patients do not absorb sufficient zinc from ordinary diets to compensate for the urinary losses. Such individuals, according to these data, should develop a zinc deficiency, but symptoms of such a deficiency are unknown.

More recently, Sheline, Chaikoff, Jones, and

Montgomery (*J. Biol. Chem.* 147, 409 (1943)) have attacked the problems of zinc metabolism with the aid of its radioactive isotope, Zn^{65} . The use of this material and the sensitive method of analysis provided by the Geiger counter made possible the use of minute amounts of the element. Approximately 0.4 microgram of zinc was injected into mice and approximately 6 micrograms into dogs. The total zinc content of the body is not increased appreciably by this amount of labeled zinc, hence the authors believe that the excretion of Zn^{65} forms a true picture of normal endogenous zinc excretion. They found that a large portion of the Zn^{65} appeared in the feces. This amounted to 50 per cent of the injected quantity in seven to eight days in the mice, and approximately 25 per cent in twelve to fourteen days in the dog. Although the radioactive zinc appeared early in the urine, less than 5 per cent of the total was excreted by this route in the above periods of observation.

The distribution of radioactive zinc in the tissues after intravenous injection was also studied by Sheline, Chaikoff, Jones, and Montgomery (*J. Biol. Chem.* 149, 139 (1943)). They noted a rapid disappearance of Zn^{65} from the plasma of the dog and early deposition in the liver. Three hours after injection, the dog's liver contained 38 per cent of the total Zn^{65} . The "turnover," that is, the rapidity of the uptake and loss, was greatest in the liver, pancreas, kidney, and pituitary gland. The slowest turnover occurred in the red blood cells, brain, skeletal muscle, and skin. Spleen, gastrointestinal tract, adrenals, lungs, bone, heart, and thymus were intermediate in this respect.

These studies show a wide distribution of zinc in the animal body. In addition to the presence of zinc in carbonic anhydrase, the metal has been found in purified uricase preparations and appears to be necessary for the storage of insulin in the pancreas. The evidence indicates that the zinc of the body is widely distributed and is probably associated with the proteins, at least some of which are enzyme molecules—*Nutrition Reviews*, Vol. 1, No. 13, November, 1943.

Extremity Joint Pain

The joints of the extremities are subject to many types of arthritis and related diseases of which acute rheumatic fever, rheumatoid, hypertrophic and gonococcic arthritis and gout are clinically the most important. The acutely inflamed articulations of rheumatic fever can be easily controlled by putting the patient to bed, protecting the affected extremities by padded splints, applying oil of wintergreen liniment locally and administering large doses of sodium salicylate by mouth.

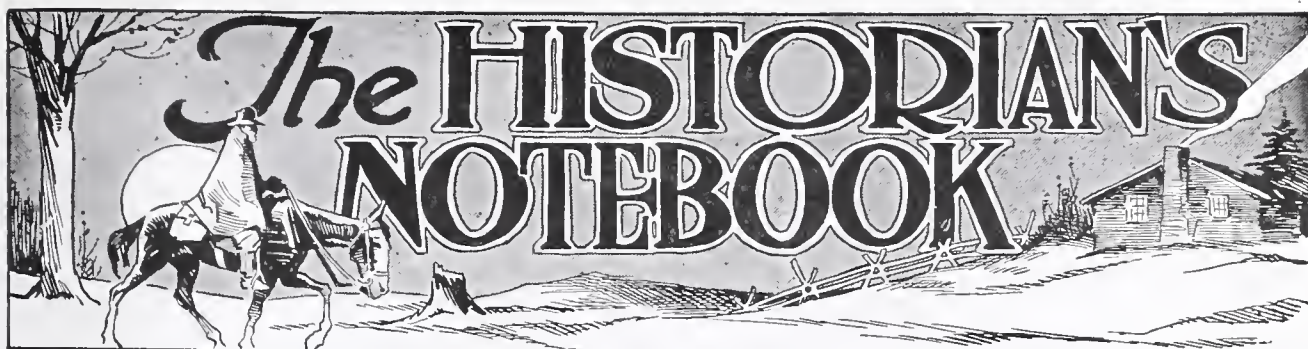
Throughout the course of rheumatoid arthritis the one symptom most frequently responsible for

incapacitation is joint pain. Nevertheless, the systemic nature of this disease must be remembered at all times and treatment must be directed to the patient as a whole rather than to the painful joints alone. There are certain general measures of proven value which all investigators agree constitute the backbone of therapy. Rest, both general and local, efforts to maintain optimum nutrition, physical therapy for the prevention and correction of deformities, and the use of iron for any associated hypochromic anemia are fundamental in the management of this generalized disease. In some cases the removal of diseased tonsils or teeth is advisable. Gold salts, vaccines and vitamin D in massive doses are other measures aimed at arresting the activity of the disease and their use under carefully controlled conditions is advised.

The aim of local measures in the care of rheumatoid arthritic joints is to keep them as free from pain as possible, to prevent flexion deformities and to maintain normal motion. The use of plaster molds gives rest and support during the acutely painful stages and are oftentimes indispensable in the prevention of deformities throughout the course of the disease. These splints may be worn constantly during the acute stage, but should be removed at least once daily to allow motion. Physical therapy in the form of hot poultices, melted paraffin baths, hot and cold contrast baths and baking lamps are comforting, useful aids in the control of joint discomfort, and their frequent home use should be incorporated in the program of therapy.

Hypertrophic arthritis often causes changes in the joints of the extremities and is especially prone to occur in the ankles, knees, hips and the terminal interphalangeal joints of the fingers. In this disease pain may extend for considerable distances into the periarticular tissues. The general measures of treatment are aimed at relieving excessive trauma; reduction of weight in the obese patient may completely relieve the symptoms. The local treatment of the joints with dry heat and massage to increase the blood supply effectively relieves pain.

Pain is an important factor in incapacitating patients with acute joint disease and in the production of deformities in chronic joint disease. The basis for pain in joint diseases has been discussed and the importance in differential diagnosis has been emphasized. The control of this important symptom constitutes one of the major problems in the treatment of arthritis and allied disorders. Satisfactory analgesia can usually be accomplished by the proper use of rest, splints, drugs, roentgen irradiation therapy and other physical measures.—Charley J. Smyth, M.D., Eloise, Mich. and Richard H. Freyberg, M.D., Ann Arbor; *Jour. Mich. S.M.S.*, Vol. 42, No. 10, October, 1943.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Meeker Day on Midwifery

PHILIP D. JORDAN, Ph.D.

IN 1833, when thousands of young couples were pushing westward to the fertile lands and timbered stretches of the Ohio country, a New York botanic physician, trained in the Thomsonian system, published a slender, paper-bound pamphlet which sold for less than a dollar. Within its 24 pages of hand-set type were purported to be the secrets for "curing all diseases" and the "formulas or recipes for the cure of every disease incidental to Human Nature". But perhaps the most important section of the booklet was devoted to the practice of midwifery.

Hundreds of copies of L. Meeker Day's *Botanic Family Physician* must have been slipped into boxes, trunks, saddlebags, and pockets there to remain until a clearing had been made in the wilderness, a log house erected, a hearth fire kindled, and a family begun. For all too frequently obstetrics in frontier days was practiced by a well-intentioned, but ignorant, neighbor lady steeped more in the lore of superstition than trained in even the elementary tenets of nineteenth-century medicine. Sometimes, as is attested in pioneer diaries and letters, an embarrassed and perspiring husband, with manual in hand, delivered his wife according to printed instructions.

Day attempted to provide for exactly this type of emergency, and his book was crisp, lucid, and to the point. Almost anyone who could read, providing he did not lose his head, could deliver a patient according to Day on obstetrics. In general, his observations and instructions were reasonable and in accord with the knowledge of his times. He made no pretense of knowing more than he did and he scoffed at those who attempted to make of midwifery a mysterious procedure. "Thanks and blessings", Day wrote, "have been poured upon me, under the idea that I have saved their lives in labour, when I had done nothing but look on and admire the perfectly adequate powers of nature, and superintend the efforts of her work; and it is nature which accomplishes all, while the accoucheur gets

The Author

● Dr. Jordan, Oxford, Ohio, associate professor of history at Miami University, bases this article on frontier obstetrics in Ohio upon one of the rare pamphlets on midwifery which was used extensively by pioneer families during the early decades of the nineteenth century.

the credit for it! There is not one case in a thousand in which you can be but only a silent spectator, except it be to calm the fears of the ignorant and timid attendants. The mischief and injury that is done by the untimely interference of art is incalculable".

Then Day went ahead to instruct the uninitiated in the proper procedures. He said that one could determine true pains because they were more concentrated in the lower part of the belly and through the loins and hips and because they would increase in regularity and force, returning every 10 to 15 minutes, and leaving the woman comparatively easy during the intervals. When pains thus became regular and severe and when there occurred a discharge of slimy water tinged with blood, the frontier midwife was to make an examination by "requesting the female to sit in a chair, or on the side of the bed, and extend the legs, when the longest finger, dipt in sweet oil, may be passed up the vagina to the part which presents, and the sense communicated will determine the nature of the presentation. In 19 cases out of 20, or in almost every case, the head will be felt". He made no detailed provision, however, in his instructions for the breech presentation and the exceptional case, although he attempted to cover such a situation as follows:

"Preternatural labour, or cross births, are those in which some other part than the head presents. We cannot in general assign any reason for such occurrences, nor can the woman by any sensation of her own be assured that the presentation is unusual. Apprehension of this kind should

not be indulged in. If the feet or breech present, the delivery is to be accomplished by properly accommodating the uterus of the child to the capacity of the pelvis, but no force should be employed, and although there is always some risk to the infant, there is none to the mother. If the arm, shoulder, or sides of the child present, the delivery is impossible until the infant be turned, and the feet brought down into the passage. This is an operation which may be done with comparative ease and safety, if the wrong position of the infant be discovered before the waters are discharged; but otherwise both mother and child are in considerable danger. The womb closely contracting around the body of the infant, when the water is drained away, and being soft and spongy in its texture, it is liable to be torn if much force be employed, and then either there the child may escape into the cavity of the belly, or if it be extracted by the feet, blood may be effused from the womb into that cavity, and such injury be done as to prove fatal".

For the normal delivery, Day suggested that the patient be placed upon her back on a bed, that a "dressed skin, oilcloth, or folded blanket" be placed under her, that a sheet be tucked around the waist to prevent soiling the mattress, and that a pillow be put between the legs. "Everything being thus adjusted, very little more will be necessary but to wait patiently the efforts and operations of nature. There should be few attendants in the room, and these should not whisper to each other, or express any fears or doubts. When the pains become very severe, quickly succeeding each other, the midwife or the person who officiates, may sit by the side of the woman, and upon every severe pain may keep her hand upon the parts, even though no manner of assistance can be afforded; and occasionally when the head of the child presses hard, it may be gently touched or pressed with the longest finger, in order to ascertain the parts which present the progress of labor, as well as to be able to give from time to time suitable encouragement; not only so in the last stage of labor, the hand may be kept near the parts to know the moment when the head of the child presents; as some little assistance at this time is called for; not by supporting the perineum as some advise, but *first* to remove any obstruction which often arises from the clothes.

"Second. To support the child in its passage, and in the interval of pains; and to keep the head from pitching downward and thus obstructing the labour.

"Third. To detach the umbilical cord or naval string from the neck, when it encircles it, as is often the case, and which endangers the life of the child.

"Fourth. When the head is delivered, all that is necessary to do is to support it, and wait for the pains to expel the child; except it seems

livid and in danger of injury, or when the cord is twisted around the neck, when assistance must be rendered to accomplish the delivery. The face of the child must now be turned upward, the cord freed from the neck or body, and the person who assists, will pass a narrow piece of tape around the cord, or naval string, about an inch from the body and tie as tight as it can be drawn, otherwise hemorrhage or bleeding will take place; and another must be tied at a little distance from it above, and be separated betwixt them with a pair of scissors. The child is then to be given to the nurse. The woman must now be covered up and directed to lay quiet".

To remove the placenta, it was recommended that after about 20 minutes or a half hour the head and breast be elevated, and the cord taken hold of by the left hand. Then the first two fingers were introduced into the vagina, and the placenta held in position for a few minutes "in order to excite a contraction of the uterus". At this time the patient was directed to hold her breath and to press down while at the same time a little extension be made on the cord with the left hand. The placenta then ejected. A bandage was then placed about the belly and the bed cleaned.

If after-pains deprived the patient of rest, a pan of red peppers and spirits was set to simmer. Into this mixture the midwife dipped flannels and applied them to the belly. A fomentation of bitter herbs or two teaspoonfuls of the tincture of hops in milk or tea was administered orally. The fomentation might be prepared with either camomile or beth root. Post-delivery hemorrhage was checked, according to Day, by a little alum whey or by a tea made from the beth root or scabious. "Pouring cold water", he advocated, "on the abdomen, over the region of the uterus, from a height of four or five feet, will generally arrest a flooding immediately".

The utter simplicity of Day's instructions, of course, was of value to the untutored frontier midwife and they represented current practice among the profession. Day was not adverse to suggesting that for a quick delivery "take a piece of muskrat skin, steep it, and drink". But his elementary comments left much to be desired. Within a decade much more advanced books written for the use of the laymen were being published. Among these were Morris Mattson's *The American Vegetable Practice*, published in Boston in 1841, which not only gave extensive discussion to the physiology of reproduction, but also discussed pregnancy and its diseases as well as detailed instructions for the midwife including the use of the perforator, vectis, blunt hook, and forceps. But until literature such as this found its way into the back country, thousands of families pinned their faith to words of Day.

Health Bureaucracy, An Interpretation of S.1161, Pending in Congress, by the Rt. Rev. Msgr., Maurice F. Griffin

HOW would the voluntary hospital system be affected if the Wagner-Murray-Dingell Bill (S. 1161) now pending in Congress is enacted?

Among the various analyses which have been made of the Wagner Bill, one of the best is that presented by the Rt. Rev. Msgr., Maurice F. Griffin, Cleveland, a trustee of the American Hospital Association, writing in *Hospitals*, official publication of the American Hospital Association.

Following is the text of Msgr. Griffin's article which carried the title, "Health Bureaucracy, An Interpretation of S-1161":

* * *

IN opposing *Section XI, Title IX* of the Social Security Act as amended, providing "federal medical, hospitalization and related benefits" in S. 1161, the Wagner Bill, we cannot be considered in opposition to the general activity of the government in entering areas not now well covered and in supplementing voluntary effort along the lines of social security.

Socialized medicine and compulsory health insurance would constitute a revolution in the health care of the American people. The Wagner Bill (S.1161) would effect such a revolution.

NO REVOLUTION NEEDED

It might be considered justifiable on the assumption that medical education and the practice of medicine have sunk so low as to constitute a national emergency, or that the voluntary hospital system is incomplete, inefficient and incapable of improvement and expansion. Neither of these assumptions could possibly be sustained.

Under the able leadership of medicine, voluntarily organized, our medical schools are second to none in the world. They are giving our people more and better trained physicians than any other nation enjoys.

No revolution is needed, none could be justified.

WHAT IS THE PURPOSE

The Wagner Bill is not to better or extend the hospitalization of our people. It is "to establish a unified, national social insurance system" including practically all of the wage earners of the country and their dependents—but not the indigent, who are the ones who most need assistance. *Title XII, Section 1205 (2)* does not include hospitalization in the "assistance to needy individuals" to be provided by the states in the "unified public assistance program." All are to be regimented into this "federal system of medical and hospitalization benefits." They have traditionally been and normally they would continue to be the full-pay and the part-pay patients of all of our hospitals, who have been paying their bills, and who now more than ever are able to do so. The wealthy, the high-salaried as well as

CLIP AND SAVE

Clip and save this article for your Wagner Bill File. You will find it handy for future reference.

those in the more modest income brackets are all included, not because by any stretch of the imagination they are in need of any assistance from a paternalistic government, but because this is another way to get some more of their money.

The citizens have no option, they are all forced into a pay roll tax and a pay roll deduction amounting to 12 per cent for the new social security program including medical and hospitalization benefits to which our objection is directed.

"WILL BE LIQUIDATED"

Doctors and hospitals have the option of refusing to subscribe to the regulations of this state medicine program. If so, they will be liquidated, having no patients, as all of the patients will be government patients and all of the money will be by government money. Of course it is conceivable that some people who have paid the government would also be willing to pay a fee to a non-conformist doctor. But there is not going to be much room for the independent practice of medicine and the independent administration of hospitals.

Just as the Wagner Bill makes no provision for the care of the indigent which is the great social and financial problem, so it makes no provision for additional facilities and services as needed in rural areas and thinly settled population, in new defense areas, in areas of economic stress. In fact, if there are such it does not make it possible for anyone to secure hospitalization who cannot secure it now, and it does not make it easier for anyone to secure it who finds difficulty in securing it now. It is no contribution to the extension of hospitalization.

What it does, is, after an insured worker has received hospital care, it reimburses him in part

for the cost of the service he has already received. Under certain definite restrictions, it makes a cash indemnity payment directly to the patient, which is admittedly insufficient.

There is nothing in the bill requiring the patient to assign his claim to the hospital on admission, or to pay the hospital if, as, and when he gets some money from the government. There is nothing in the bill requiring the patient to make application for a hospitalization benefit, and nothing permitting the hospital to make application when the patient fails to do so. All there is in the bill is the statement to the effect that "there is nothing to limit the right of any person to transfer or assign to the participating hospital money paid or payable," *Section 1108 (a)*. It is rather interesting that the bill clears up any insinuation that the government would limit the right of a citizen to transfer to a hospital or to any one, money it had paid to the citizen.

THE SLIM CHANCE

But if the application is in before the deadline, and is in proper form, and the claim is allowed—as the weeks and months pass before any money actually arrives, the chances of the hospital getting any of it become more and more problematic. While the fixed indemnity payment made directly to the insured worker is the general rule, yet—

Section 915(g) provided "in lieu of such compensation the surgeon general may, after approval of the Social Security Board, enter into contracts with participating hospitals for payment of reasonable cost of hospital service at rates for each day of hospitalization neither less than the minimum nor more than the maximum applicable rates—such payment to be full reimbursement for the cost of essential hospital service."

When such a contract is in force the hospital will be expected to accept as "full reimbursement for the cost" an arbitrary rate of from \$1.50 or \$3 to \$4 or \$6 per day. (*Section 915-g*). As this is "full reimbursement" nothing more can be collected from the patient. In fact as the contract is with the government, nothing can be collected from the patient—except maybe for things that are demonstrated as "unessential" hospital service.

If the assessment on payrolls and the payment of an admittedly insufficient indemnity or starvation rate to hospitals, were all there was to the Wagner Bill, that would be bad enough, but the worst is still to come.

GOOD PRECEDENTS

Other departments of government, notably the Children's Bureau under the secretary of labor, the various state industrial commissions, and many municipalities and counties have con-

tracts with hospitals, and pay for hospital service without assuming any dictatorial power over the practice of medicine or the administration of the hospitals. Private insurance companies pay their indemnity payments and call it a job. Even the hospital-sponsored service plans have never set themselves up as a super-organization to control the hospitals.

But in the Wagner Bill, the Social Security Board representing the federal government, in order to make this small payment for hospitalization, sets up an elaborate all-powerful organization with absolute control of medical education, the practice of medicine and all service in hospitals. This looks like a definite attempt to use this small payment as an occasion to put over their program of state medicine.

TWO KINDS OF CONTROL

The control is direct and indirect.

The direct control, outlined in the bill, (*Section 904-b*), makes the surgeon general of the Public Health Service a medical czar with greater power over the welfare of the American people than any official ever exercised before. He holds their health and happiness in the palm of his hand, with power to make them the vassals of the state. As a mere gesture there is set up a puppet council, which he appoints, over which he presides as chairman, and whose advice he is in no way bound to follow.

The bill (*Section 904-b*) outlines his function: Professional standards of quality to apply to general and special medical benefits; designation of specialists; coordination of the services of general practitioners, specialists, laboratories . . . coordination of the services of practitioners with those of educational institutions, hospitals and health centers; standards to apply to participating hospitals; the establishment and maintenance of a list of participating hospitals; suitable arrangements for paying for medical and hospital services; studies and surveys of the services furnished by practitioners and hospitals, and the quality and adequacy of such services; grants in aid for professional education; establishment of special advisory, technical, local or regional boards, committees or commissions, etc., etc.

STILL MORE POWER

In addition to these general provisions outlining his function there are several special sections strengthening his power:

Section 914 provides that "the surgeon general after consultation with the Social Security Board and with the approval of the federal security administrator shall make and publish such rules and regulations . . . as may be necessary." There is no mention of the puppet council.

Section 911(b) gives the surgeon general the power to limit "the cost of laboratory benefit

MONTH OF DECEMBER IS THE TIME FOR PAYMENT OF ANNUAL STATE ASSOCIATION DUES TO LOCAL SECRETARY-TREASURERS

PAYMENT of 1944 State Association dues to the amount of \$7.00 should be made by all members not in military or full-time government service during December to local Secretary-Treasurers. Dues for those in the services will be waived.

Membership in the State Association is on a calendar year basis so to keep himself in good standing a member should pay his dues to his local Secretary-Treasurer promptly so they can be forwarded to the Columbus office on or before January 1, 1944.

The medical profession has a big job to do on the home front. To carry on effectively it must keep its organization functioning efficiently. Prompt payment of dues so the wheels can be kept in motion is important. Send your check to your local Secretary-Treasurer immediately for your 1944 dues, unless you are in the services, in which case you will automatically remain as a member during 1944.

which shall be borne." It is difficult to see what this had to do with an arbitrary, post factum, cash indemnity to the patient.

Section 915(c) provides that the term "laboratory benefit means such laboratory or related service, supplies or commodities as the surgeon general may determine." There seems to be little point in discussing the cost of supplies and commodities when the payment is not on a per capita per diem basis.

Other illustrations from the bill could be given to demonstrate the contemplated interference, supervision and control of medical and hospital service.

Besides those quoted there are other controls that are indirect!

Section 905(1) provides that all physicians furnishing such services as benefits must do so "in accordance with such rules and regulations as may be prescribed."

Section 905(2) states that the citizen is permitted to select "those from whom he shall receive such services except specialists." Despite this statement concerning the free choice of physician it is further provided in *Section 905(3)* that "the surgeon general shall publish . . . the names of the general practitioners who have agreed to furnish benefits, etc." The citizens lose all right to claim any benefits if they knowingly or unknowingly have a doctor who has not agreed to practice medicine "in accordance with such rules and regulations as may be prescribed."

THE CZAR'S PERMISSION

All wage earners are to be compelled to pay the government for their medical and hospital services and when the emergency of sickness comes upon them, they cannot do what they do

now, reach for the phone and get the doctor they want. No, the first thing the sick person must do is to find out the names of doctors who have been considered acceptable by the medical czar, and no matter what their past experience or their preference may be, they must call one of these doctors—or lose their benefit.

And the doctor, when he gets a call, cannot do what he now does, hurry into his auto and get to the patient in the shortest possible time. No, the first thing he must do is to look up the list that has been approved by the medical czar and find out if the patient calling him is on that list. If he is still old-fashioned enough to take care of a sick person just because the person needs his help, he will forfeit all claim to his fee, which, by the way, is also set by the medical czar.

Section 905(10) further complicates the problem as it provides that "the surgeon general may prescribe the maximum limits to the number of potential beneficiaries for whom a practitioner may undertake to furnish medical benefits."

DEALING OUT THE DOCTORS

Section 905(11) provides that "the surgeon general shall distribute on a pro rata basis among the practitioners of the area on the list . . . those individuals in the area who have failed to select a general practitioner, or having made a selection have been refused by the practitioner." The citizen who wants to have the popular doctor will find his free choice of physician seriously interfered with by this limitation of the number of potential beneficiaries to be assigned to any one doctor.

When that doctor's list reaches the prescribed limit that doctor must refuse to serve any more. Although the citizen has followed the very letter of the law and has duly made his selection of a practitioner, he has been refused and will be put

on the list of some other doctor whom he does not want, by the pro rata distribution.

No housewife in the throes of point rationing has had any difficulty yet, compared to the confusion of this listing of doctors and patients, which, because of its very nature, must be constantly changing.

NO STAFF ORGANIZATION

Hospital administrators will recognize the impossibility of carrying on their present admission procedures. Staff organization will be no more. A staff appointment would be meaningless. Any practitioner who has agreed to the state medicine program can take care of any patient. And it must always be kept in mind that any patient means any patient in any hospital—except of course the indigent.

Section 907(a) provides that "the surgeon general shall publish and maintain a list of institutions found by him to be participating hospitals—and to withdraw therefrom any institution that fails to meet his requirement in accordance with the general standards previously prescribed by him."

Section 915(f) defines a participating hospital as an institution providing all necessary and customary hospital service and found by the surgeon general "to have procedures for making such reports and certifications as the surgeon general and the Social Security Board may from time to time require to assure that hospitalization benefit will be provided only to or on behalf of individuals entitled thereto." Professional standards seem to be secondary to bookkeeping procedures, the purpose of which is to "protect the fund" against chiselers.

Section 911(a) provides that "the surgeon general and the Social Security Board may determine . . . that every individual may be required . . . to pay a fee with respect to the first service or with respect to each service in a spell of sickness . . . to prevent or reduce abuses."

NOT MERELY HEALTH

Such provisions as this emphasize that there are other purposes in this legislation. We must conclude that the compulsory insurance system of the government is not a purely health measure. Restricted benefits and "enlarged contributions" into the fund go together to build up unnecessarily high reserves for extraneous purposes.

We must remember that this proposition was first officially presented to the American people as a budget message proposal to secure billions of dollars for "war purposes and post-war contingencies," as announced to the Congress in January of 1942. The estimate of two billions reserves to be made available to the payroll then would now be increased several billions which

the workers of the country would have to pay into this reserve fund on the condition of receiving medical and hospital benefits.

In regard to the reserves of social security, we must remember that they are unnecessarily high without the additional coverage and increased rates. In the recent congressional investigation a senator stated that, from the history of the demands on the fund, the reserves would take care of all demands for thirty years.

MISUSED RESERVES

We protest against unnecessarily high reserves, against collecting a medical and hospitalization tax resulting in the piling up of a reserve that is considered very desirable as it can be used for an extraneous purpose—however praiseworthy that purpose may be in itself. We agree with the national responsibility of taxation for "war purposes and post war contingencies" but we insist that such financing be for that announced intention. We insist that there is a definite commitment for the expenditure of tax money for the purpose for which the tax was levied. We agree that reserves should be invested only in government securities, with both the income and the principal available for the designated purpose.

But if, instead of considering the budget message proposal in which the reserves were held to be so attractive, we take the opposite view which is expressed by certain spokesmen of the Social Security Board, namely, that their formula will raise only an amount approximately equal to the total income of the voluntary hospitals for an average year, we immediately see a new and greater seriousness in the situation.

CUT IN STANDARDS

This amount is now needed to give the people the kind of service they are now getting. Under the federal insurance program, this amount would be spread out over many of the patients in the local tax-supported hospitals who had been caught by the compulsory enrollment. This extension of benefits to many more patients means that the amount available would be reduced in proportion and in the same proportion the standard of service would be reduced.

The estimate of a fifty-fifty division for medical and hospital costs is entirely at variance with all of our experience. "Home, office and elsewhere" medical service will cost about three times as much as hospitalization. There is not enough money provided in the proposed legislation to meet this, unless there is to be an almost unbelievable reduction in medical fees. If the people want this sort of thing, they must be prepared to accept a payroll deduction and a payroll tax much larger than the 12 per cent now proposed.

There is another serious question to be an-

swered. What percentage of this tax should industry pay? Employers' liability places 100 per cent responsibility on industry for the care of its accidents. But where there is no connection with employment in the illness, it is another question. As a public health measure the burden might well be considered as a general taxation problem. The Canadian program places 51 per cent of the cost in general taxation. But whatever formula is finally worked out, it is generally accepted that industry will pass it along to the public—the consumer ultimately pays.

THE CONSUMER PAYS

This is what the workingmen and their families will have to face: They will have to foot the bill; they will be paying for the kind of service they now know; the kind they have been used to; the kind they can get now; but will not be able to get it under the federal insurance system. They will not be getting their money's worth. The arbitrary low rate must establish a reduced standard of service.

What kind of care can a hospital give for \$3 per day during an acute stay, and what kind of care can it give for \$1.50 per day for prolonged illness? Yet the bill makes this "full reimbursement for the cost of essential hospital service." In other words, essential hospital service is the sort of service that costs \$1.50 a day, and it is the kind of service the hospitals will be expected to give in the future. The people in the nations where it has been tried have revolted against it. The American people who are accustomed to the best hospital care in the world will not be satisfied with it. It would be a sad day for them if the present excellent system is bankrupt and the present excellent care is no longer available.

Labor organizations in supporting this legislation are holding out a false hope to the wage earners in promising them an extension of security when in reality that is exactly what is being taken away from them, in permitting the regimentation of the workers into a minimum, substandard, least common denominator type of hospitalization.

BANKRUPTCY THREATENS

When the government establishes a flat rate of from \$1.50 or \$3 to \$4 or \$6 per day (*Section 915-g*) that rate becomes the official standard of payment. The citizens who have paid the government for their hospitalization cannot be expected to pay the hospital anything more. They will insist, and rightly, that it is the business of the hospitals to get their pay from the government, and, furthermore, that the hospitals will have to wait until the government pays them. *Section 915-g* establishes the precedent for this rate as full reimbursement for the cost.

Hospital administrators will appreciate that

this will make the operation of the volunteer hospitals impossible. The substitution of the new government plan of financing will bankrupt the voluntary hospitals. With the fall of the voluntary hospital comes the fall of the voluntary hospital system and all that is involved—the hospital associations, the hospital magazines, the hospital-sponsored service plans and the hospital contributions of our people.

Hospitalization is put in the same class as public safety, a thing to be given the people as the protection of the police and fire departments. It becomes a political football, a prey to patronage, an instrument for continuing power.

Chance For You To Talk!

Are you a member of the Kiwanis, Lions, Rotary or other luncheon club? If so, see the chairman of the Program Committee, and tell him you want to give the members a talk on the Wagner-Murray-Dingell bill. If he books you—and he probably will, as most program chairmen are looking for speakers on topics of current interest—then call the secretary of your county medical society. He will furnish you with a copy of a "model" address on the Wagner Bill, prepared at the State Headquarters Office. He also has a news release for the local newspapers. Here's an opportunity for you to render a real service to the public as well as the medical profession. Don't pass it up!

Surgery Fellowships Established

During the recent observance of the centennial of the Western Reserve University School of Medicine, the trustees of the Cleveland Clinic Foundation granted \$50,000 for surgery fellowships to the University. The gift is to be known as "The Bunts, Crile and Lower Surgical Fellowship Fund," honoring Drs. Frank E. Bunts, George W. Crile and William E. Lower, who, with Dr. John Phillips, established the Cleveland Clinic Foundation. The principal will be held in trust, with the income being used to maintain fellowships in surgery for postgraduate students chosen by the medical school faculty.

Cleveland—Dr. William W. Gruelich, director of the Brush Foundation and professor of physical anthropology and anatomy, Western Reserve University School of Medicine, spoke on "Growth of the Child", at a meeting of the Chagrin Falls P.T.A.

Columbus—Dr. L. N. Jentgen spoke on "X-ray in Radiology", at a meeting of the Columbus Society of X-ray Technicians.

Standing Orders for Nurses in Industry: Suggestions by Council on Industrial Health of the A.M.A.

IN THE NOVEMBER, 1943, issue of *The Journal*, there appeared a reprint of a special pamphlet prepared and issued by the Committee on Industrial Health of The Ohio State Medical Association, entitled, "*Fundamentals in the Organization and Operation of an Industrial Health Program by a County Medical Society*".

Reference was made in the pamphlet to the "Standing Orders for Nurses in Industry", prepared by the Council on Industrial Health of the American Medical Association.

Believing the suggestions of the A.M.A. council are timely and important and that they should be followed in all areas where nurses and lay personnel are utilized, *The Journal* is reproducing the "standing orders" for the information of its readers as follows:

* * *

FOR some time the medical and nursing professions have been concerned about the employment of nurses in industry without adequate medical supervision. The Council on Industrial Health has therefore been requested to formulate standing orders for industrial nurses which can be adapted to meet the requirements of individual industrial medical departments. If no responsible industrial medical authority exists, it is recommended that the nurse request helpful instruction in this regard from the committee on industrial health of the appropriate county or state medical society.

GENERAL RELATIONSHIPS

Standing orders represent a preliminary understanding between physician and assisting personnel about routine conduct of a medical service. In establishing such orders in an industrial medical department, several considerations need to be borne in mind:

1. The greater the amount of personal supervision exercised by the physician directly in the industrial environment, the better is the industrial health service.

2. Standing orders cannot be written to meet every situation likely to arise in industry. They must be modified to meet specific requirements and in accordance with the training and professional competence of the assisting personnel. They should be signed by the supervising medical authority and posted prominently in the medical department.

3. The nurse in industry should assume no responsibility for service outside the field of her professional training. This applies particularly to individual case management, from which the nurse should rigidly abstain except:

- (a) In emergencies demanding immediate independent judgment and action.
- (b) Procedures of preliminary or first aid nature routinely required by reason of the nature of the work and which are clearly stipulated in the standing orders.

This statement confines itself mainly to these

last named aspects of mediconursing relations in industry. Additional reports on other functions of industrial nurses will follow as needed.

EMERGENCY PROCEDURE IN INDUSTRY

General principles which operate in all emergency situations apply to industry as well. They are:

1. Call a physician immediately.
2. Stop bleeding.
3. Restore breathing.
4. Prevent shock and infection.
5. Do no more than is actually needed.

The supervising physician should assure himself that these instructions are thoroughly understood and should institute special training when necessary. Nurses in industry should qualify as first aid instructors.

Emergency Supplies.—Emergency packs with essential sterile supplies should be available at all times in the medical department and in first aid kits suitably located throughout the plant. Regular inspection is necessary.

Hemorrhage.—Bleeding calls for immediate attention. The nurse should notify the physician and, until he arrives, proceed as follows:

1. Expose the wound.
2. Remove obvious foreign matter.
3. Apply pressure.

Direct manual or bandage pressure firmly applied over sterile gauze packing at the bleeding site will effectively control moderate hemorrhage. Indirect compression is indicated in excessive bleeding not controllable by direct methods. Digital compression over the vessel against underlying structures either adjacent to the wound or at the nearest pressure point will usually suffice until the physician arrives. Indirect pressure should be applied proximal or distal to the wound, in keeping with the arterial or venous character of the bleeding. Hemostats or clamps should be applied whenever the emergency warrants it.

Avoid applying a tourniquet if possible. If

severe bleeding in an extremity suggests the use of a tourniquet, apply a blood pressure cuff.

The nurse should remember that:

1. A direct pressure bandage should not act as a tourniquet.
2. A tourniquet must be periodically released at least every fifteen minutes.
3. No dressing should be applied over a tourniquet.
4. Asepsis must be observed at all times.

Asphyxia.—Cessation of breathing from any cause demands:

1. Artificial respiration *at once* and *at the site of the accident*.
2. Notification of the physician.
3. Maintenance of body warmth. Avoid excessive heating.

All industrial nurses should demonstrate ability to apply artificial respiration by the prone pressure method and should realize the need for its continuous application until breathing is restored or until careful repeated medical examination advises otherwise.

Shock.—*Early and adequate shock treatment is life saving. Do not delay.*

Common symptoms of shock following injury are pallor, perspiration and rapid thready pulse. Emergency management by the nurse should include:

1. Notification of the physician.
2. Removal of cause. If shock is due to hemorrhage, control it. If it is due to trauma not associated with bleeding, all active treatment of injury should be deferred until shock management has been instituted. Wounds should be covered with sterile dressings to prevent infection.
3. Relief of pain: $1/6$ to $1/4$ grain (0.010 to 0.016 Gm.) of morphine sulfate, repeated if necessary, or barbiturates as routinely ordered except in injuries to the head or trunk.
4. Keeping the patient warm, dry, and on his back with his head low. Avoid overheating.

ROUTINE NURSING CARE OF INJURIES

Successful medical management of industrial injuries depends on:

1. Prompt treatment.
2. Meticulous cleansing and dressing.
3. Examination of deep as well as of superficial structures.

To accomplish these ends the routine functions of the nurse should be confined to care of minor wounds as follows:

1. Protect wound with sterile gauze while adjacent area is cleansed with soap and water or solvent.
2. Discard protective dressing and clean wound margins.
3. Irrigate wound with sterile water or isotonic solution of sodium chloride.

4. Apply antiseptic of physician's choice.

5. Apply dry sterile dressing, interfering as little as possible with function. Sterile dressings should be covered with protective material for use at work. The worker should be instructed not to remove the dressing but return to the medical department if it becomes loosened or uncomfortable.

The nurse should do no more than is actually needed. The following conditions require direct medical supervision:

1. Wounds requiring débridement.
2. Those with obvious or suspected involvement of deep structures.
3. Wounds with edges which do not approximate.
4. Wounds about the head and face.
5. Contaminated wounds requiring tetanus prophylaxis.

Management of Common Injuries.—Injuries most likely to be encountered in industry include the following conditions:

1. Abrasions: Clean and apply dry dressing. Extensive or deep loss of skin, especially about the fingers and hands, needs medical attention.
2. Contusions: Treat with cold compresses directly following injury, later with moist heat. If soreness or disability persists or if deep involvement is suspected, refer to the physician.
3. Lacerations: Clean and apply dressing as directed. Any possibility of injury to joints, nerves or tendons should be brought to the physician's attention at once.
4. Puncture Wounds: Puncture wounds through the skin need direct medical supervision to avoid or treat severe infection. If superficial, clean and apply sterile dressing.
5. Slivers and Splinters: Penetration through the skin by slivers or splinters always carries the risk of an infected puncture wound and should be treated as such. Those lodged superficially and easily removed without added trauma or incision may be extracted aseptically by the nurse.
6. Burns and Scalds: Clean minor burns with soap and water. Apply petrolatum or 5 per cent boric acid ointment, bandaging firmly without interfering with function. Leave blisters alone.

In all other cases:

- (a) Notify the physician.
- (b) Cover the burned area with a sterile dressing or sheet moistened with isotonic sodium bicarbonate solution.
- (c) Combat pain and shock.

In the absence of specific orders, chemical burns should be treated by irrigation or immersion in water for at least twenty minutes and then by dressing.

7. Sprains and Strains: Treat first with cold compresses, elevation of the part and rest. A physician's advice is necessary regarding strap-

ping, other methods of support or fixation, further examination or special therapy.

FRACTURES

Preliminary steps for the nurse are:

1. Call a physician at once.
2. Keep the patient quiet and warm.
3. Immobilize before any movement is attempted.
4. Do not attempt reduction.
5. If the fracture is compounded, cover the site of the fracture with a dry sterile dressing. *Do not cleanse or reduce.*

Special instruction in splinting should be provided every industrial nurse.

EYE INJURIES

Rigid aseptic technic must be scrupulously observed in all eye conditions. Never attend consecutive patients without sterilization of instruments and careful hand washing. Remember that early symptoms of infection simulate foreign body.

Minor Burns.—Do not apply ointments to minor burns of the skin about the eye. Apply a sterile dressing and refer to the physician.

Burns of the Eye.—1. Chemical Burns: Irrigate chemical burns of the eye *eopiously* and at once with water, preferably by immersion. Neutralizing solutions are usually inadequate or unavailable. The rapidity with which the irrigation occurs is more important than the type of solution used. Continue to irrigate at least twenty minutes by the clock.

2. Hot Metal Burns: Apply a sterile pad and refer at once to the physician. Do not irrigate. An anesthetic should be applied as ordered by the doctor.

Every burn of the eye should receive competent medical attention early.

Foreign Bodies.—The nurse should attempt to remove only those foreign bodies of the eye which can be readily located and which can be easily washed out or removed with a dry sterile cotton applicator. An antiseptic may be applied if the physician so orders.

Direct medical care is essential.

1. If the foreign body cannot be readily located. Stains to aid in the location of foreign bodies should be used only on special medical order.

2. If removal requires any instrumentation.

3. If irritation or pain persists after removal.

No person with an eye injury should be discharged without examination by a physician.

"Flash" Injury.—First aid treatment should include:

1. Local anesthetic as ordered.
2. Cold compresses.
3. Sedatives.

Persistent pain following flash needs medical examination and treatment.

Conjunctivitis.—Conjunctivitis or other forms of conjunctival irritation should be referred routinely to the physician or ophthalmologist.

HEAD INJURIES

Until the physician takes over, the nurse should:

1. Keep the patient lying down.
2. Elevate the head.
3. Apply ice cap or cold compress. *No sedatives.*
4. Record pulse and respiration every ten minutes.

Clip or shave or cleanse areas adjacent to scalp lacerations, and cover with a sterile pad.

CHEST AND ABDOMINAL INJURIES

Contusions of the chest and abdomen with or without external evidence of injury may result in trauma to underlying organs.

Until seen by the physician, such patients must be:

1. Kept warm and quiet.
2. Allowed no sedatives.
3. Have pulse, temperature and respiration recorded frequently.
4. Suitably bandaged to avoid contamination.

In case of abdominal injury give nothing by mouth.

NONOCCUPATIONAL ILLNESS

Treatment of injury or illness which has no relation to occupation is not a function of the industrial medical department except:

1. First aid for emergency sickness. Such measures as the situation demands must be taken until notification of the family physician discharges responsibility.

2. For minor ailments which temporarily interfere with an employee's comfort or ability to complete a shift and for the relief of which a physician would not ordinarily be consulted.

In all relationships of this kind, judgment and tact are required of the industrial nurse. Several principles apply:

1. Before giving any treatment, the temperature, pulse, general appearance and a history of the presenting complaint should be recorded.

2. Palliative treatment, especially for chronic or recurring disorders, should not be repeated.

Every properly trained nurse understands the difference between attention of this kind and systematic treatment.

CARE OF MINOR ILLNESS AND SYMPTOMS

Persistent or augmenting symptoms of irritation, discomfort or disability suggest faulty work environment. The nurse should not hesitate to ask for medical examination of workers and of the premises.

Fever.—A rise in temperature of 1 degree suggests medical consultation before work is resumed. Findings should be checked by repeated thermometer recordings.

Headache.—Record temperature. If headache is accompanied by dizziness, nausea, vomiting, stiff neck, injury, history of recurrence, fever, general malaise or other symptoms, the patient needs medical attention. If not, give an analgesic as ordered by the physician.

Remember that headache or dizziness may be premonitory signs of intoxication.

Unconsciousness.—1. Fainting. Usual symptoms are pallor, with shallow breathing, slow and weak pulse. Period of unconsciousness is of short duration.

Keep the patient laying down with head lowered until fully recovered. Be sure the patient has plenty of fresh air. Clothing should be loosened and stimulating inhalants used, such as ammonia or smelling salts.

2. Other causes. If other signs are present or if unconsciousness persists longer than a few minutes, call for medical assistance. *Give nothing by mouth.*

Toothache.—If there is a cavity, the nurse may pack it with cotton dipped in oil of cloves for temporary relief. For further examination and treatment refer to a dentist.

Nosebleed.—Spontaneous nosebleed may be treated by cold packs or pinching the sides of the nose against the septum. Keep the patient sitting erect or standing and loosen the collar if it tends to constrict the neck. Advise the patient not to breath or blow through the nose for an hour or two after bleeding has stopped.

Bear in mind that certain occupational exposures are manifested by nasal damage and bleeding.

Sore Throat.—Patients with sore throat may be given a hot saline gargle if they have a normal temperature. Do not "paint" the throat. Any persistent sore throat or one associated with fever needs medical care at home.

Respiratory Irritation or Infection.—Repeated or persistent signs of bronchial or chest irritation without associated infection suggests an unfavorable occupational exposure. A plant hygiene survey is indicated.

Persons having acute respiratory infections with elevated temperature, cough, sneezing or nasal discharge should be sent home for proper segregation, rest and medical attention. In mild infections, work may be continued if under medical or nursing supervision simple measures will control symptoms and prevent spread.

Available medical evidence at the present time cannot support routine administration of cold vaccines or vitamin preparations as methods of

reducing the incidence or severity of acute respiratory infections.

Frequent colds or chronic respiratory conditions require special medical consideration.

Abdominal Distress.—Early signs of occupational intoxication may be abdominal in character. In any case abdominal distress, nausea or pain, especially if severe or persistent, requires competent medical diagnosis and management.

Laxatives should never be dispensed from an industrial medical department.

Dysmenorrhea.—Painful menstruation not associated with fever or gastrointestinal disturbances may be treated with an analgesic ordered by the physician and the patient placed at rest with heat to the lower part of the abdomen. If there is no relief or if other signs or symptoms present themselves, she should be referred to her physician.

Patients with recurrent severe dysmenorrhea should not be given palliative treatment. They should be referred for examination and treatment.

DERMATITIS

Management of skin disorders in industry depends on cause.

Specific Irritants.—Materials or processes in the plant capable of causing skin disease should be identified and special orders provided for control. Competent dermatologic consultation is essential in all obscure or refractory situations.

Nonspecific Skin Disease.—Nonspecific skin irritation in industry is almost entirely assignable to faulty personal hygiene. The nurse can do much to improve washing routine, the use of dependable protective coverings, the wearing of clean work clothing, maintenance of satisfactory housekeeping in the plant and the general maintenance of accepted hygienic procedure.

PREGNANCY

A definite policy regarding employment during pregnancy should embrace the following recommendations:

1. The employee should notify the proper authority in industry about her pregnancy within the first trimester.

2. She should obtain a statement from her own physician—

- (a) That her work is not contraindicated.

- (b) Regarding the length of time she should work.

3. Special attention should be given to the nature of the work. Pulling, pushing and lifting must be kept within safe limits. Rest periods will tend to minimize emotional and physical instability during pregnancy.

4. Ordinarily work should terminate by the thirty-second week (within six weeks of term).

If contraindications arise within this period, the employment should stop.

5. Return to work is inadvisable before six weeks after delivery and then only on notification of the employer by the physician.

EQUIPMENT AND SUPPLIES

Space which can command privacy and which can be kept clean and properly prepared for emergency and routine services by the nurse should be provided in the plant. Special atten-

Furnishings and Supplies

General Furnishings:

- | | |
|---------------------------|-------------------------|
| 1. Sink | 9. Foot-pedal waste can |
| 2. Instrument cabinet | 10. Waste basket |
| 3. Sterilizer | 11. Storage cabinets |
| 4. Dressing table | 12. Paper towel rack |
| 5. Leg rest | 13. Adhesive rack |
| 6. Cot | 14. Record file |
| 7. Stretcher | 15. Scale |
| 8. Mirror 10 by 12 inches | |

Instruments and Supplies:

- | | |
|--------------------------------|------------------------------|
| 1. Scalpels | 13. Adhesive plaster |
| 2. Splinter forceps | 14. Cotton |
| 3. Tissue forceps | 15. Applicators |
| 4. Hemostatic forceps | 16. Assorted sutures |
| 5. Bandage scissors | 17. Assorted splints |
| 6. Surgical scissors | 18. Assorted jars and basins |
| 7. Hand magnifying glass | 19. Test tubes |
| 8. Syringes | 20. Safety razor and blades |
| 9. Assorted hypodermic needles | 21. Hot water bottle |
| 10. Assorted surgeons' needles | 22. Ice cap |
| 11. Needle holder | 23. Crutches |
| 12. Assorted bandages | 24. Tourniquet |

Drugs: (as ordered by the physician or medical adviser)

- | | |
|----------------|-----------------------------|
| 1. A stimulant | 3. Analgesics and sedatives |
| 2. An emetic | 4. Antiseptics |

tion should be given to heating, light, ventilation and accessibility.

The accompanying check list of furnishings and supplies suitable for a small plant dispensary should be augmented by equipment for emergency treatment or other special medical requirements as ordered by the plant physician or other medical adviser.

Attorney General's Opinions

Among opinions recently issued by Attorney-General Thomas J. Herbert are the following of interest to the medical profession:

No. 6404—The Ohio Commission for the Blind is authorized by law to provide vocational rehabilitation for blind persons as the term "vocational rehabilitation" is used in the federal Vocational Rehabilitation Act, as amended by the Vocational Rehabilitation Act Amendments of 1943.

No. 6405—A rule adopted by the board of trustees of a police relief and pension fund organized under Sec. 4616 et seq., G. C., providing that no deductions shall be made by the treasurer or other finance officer of the municipality from the pay of any police officer, for the account of the police relief and pension fund, unless and until such officer shall have been examined by a physician designated by said board, and the report of such physician shall have been acted upon by said board, is in violation of the provisions of Sec. 4625, G. C., and is invalid.

Doctors Are Warned To Be On Guard Against Addicts

Physicians should be warned to be on guard when strangers approach them regarding narcotic prescriptions, H. J. Anslinger, Commissioner of Narcotics, Washington, D.C., advises in a letter to the editor of *The Journal of the American Medical Association* and published in its October 30 issue. The letter follows.

To the Editor:—Because of the shortage of narcotic drugs in the illicit traffic, drug addicts are calling on members of the medical profession looking for a "soft touch". This is the addict's term for a doctor who will write a narcotic prescription after listening to a plausible tale. Hundreds of such cases are coming to our attention.

A drug addict goes into a doctor's office and simulates a bad cough. He tells the doctor that the only thing that will help him is a drug, the name of which he has on a slip of paper. He shows the doctor this slip of paper, on which the word Dilaudid is written. He takes a chance that the doctor is unaware of the fact that this drug is a derivative of morphine. It is surprising how many doctors follow the addict's suggestion and writes a prescription for Dilaudid.

In another racket the physician is imposed on in a rather unusual manner and generally writes morphine prescriptions for quantities ranging from thirty to eighty $\frac{1}{4}$ grain tablets. The addict calls on a physician and says his wife is in the care of a nurse and en route by train to join him; that his wife is in a very serious physical condition, necessitating the use of morphine. He says that the doctor has been highly recommended and that he wants him to care for his wife on her arrival, place her in a hospital and perform an operation if necessary. The addict offers a retainer. He then alleges that his wife has just stopped off in a nearby city and is unable to proceed by train until a supply of morphine is obtained; that the nurse telephoned him that his wife's supply is exhausted. The physician writes a prescription for morphine, which the addict claims he will send to his wife by air mail. In some cases the doctor has been taken in by this story to the extent that he has retained a room in a hospital for a week until he realizes that he has been victimized.

When addicts find a notice of a doctor's death in an obituary column they sometimes call on the bereaved widow on the day following the death alleging that they are narcotic inspectors and have come to take charge of the doctor's morphine stock.

Pharmacists are being deluged with forged narcotic prescriptions. Blank pads are stolen from doctors' desks by addicts. Several times we have referred to numerous thefts of physicians' bags containing narcotics. A doctor's bag left in a parked automobile near a hospital is invariably stolen by a drug addict.

Physicians are being imposed on with increased frequency. I know they are extremely busy during this emergency. They should be warned to be on guard when a stranger tries to induce them to write a narcotic prescription. Many of the drug addicts today tell us that they are obtaining narcotics to satisfy their craving by going to various physicians and simulating some serious physical ailment.—H. J. Anslinger, Washington, D.C., Commissioner of Narcotics.

Some Important Questions and Answers Pertaining To Release of X-Ray Films and Reports

TO release or not release films and information derived therefrom is a question constantly bothering roentgenologists and other physicians.

What procedure to follow is of vital importance to physicians and patients as well.

An excellent discussion of this subject, accompanied by questions and answers in which an attempt is made to apply general principles to specific situations, was published in a recent issue of the *Michigan State Medical Journal*, having been prepared by Dr. S. W. Donaldson, Ann Arbor, and Dr. B. R. Vanzwalywenburg, Grand Rapids.

Because of the importance of the subject and the logical analysis presented by the authors, *The Journal* is reproducing the article as follows for the information of Ohio physicians:

* * *

THE ever increasing importance of diagnostic roentgenology has led to increasingly varied requests to the roentgenologist for release of films or of information derived therefrom. Requests for information come from the patient, from his relatives, and from physicians whom he has consulted in addition to the original referring physician. His lawyers, lawyers of persons who have opposing interests in the case, and osteopaths and chiropractors may also request reports or opportunity to view the films. Proper procedure in the release of information is further obscured if the examination has been made at the request of an insurance company which is financially liable in the case and has paid for the examination.

COURT DECISIONS FEW

Very few court judgments are available as precedents to indicate correct procedure. This discussion is an attempt to determine from general principles as well as from precedent what the probate court action would be in a given situation.

However, the procedure which will satisfy the bare minimum requirements prescribed by law will not be broad enough to provide release of information in all the situations in which such release is in the best interests of the many persons affected. The further attempt is made, therefore, to define those situations in which release of films or reports is advisable although not required by law. It is hoped that the discussion of these principles, concerning which wide disagreement may be expected, will encourage further thought and lead eventually to greater uniformity of practice. There are three principles involved.

The few pertinent court decisions which have so far been made have been based on *principles of contract*. In determining what the implied contract was between roentgenologist and patient, the courts have relied on common practice as a guide. They have established the identity of

the roentgenogram and of the roentgenologist's report as medical records. "In a sense they differ little if at all from microscopic slides of tissue made in the course of diagnosing or treating a patient . . ." (McGarry vs. J. A. Mercier Co., 272 Mich. 501, 262 N.W. 296). In general the decisions have ruled that the implied contract between roentgenologist and patient has been fully satisfied when the roentgenologist has made his examination and communicated his finding to the referring physician.

Legal opinion suggests that, in addition to the contractual aspect, a *principle of equity* might be considered—namely that the patient, as the prime interested party, retains an interest in the results of examination in the sense of a right to beneficial use, although not possessing the right of ownership itself. This aspect has not yet to our knowledge been expressed in court opinions regarding roentgenograms or any other form of medical record. The roentgenologist's prime responsibility is, however, to the patient, and the professional principle of doing that which is in the patient's best interests suggests that a right to use of the information, beyond that required by contract, should in many circumstances be granted.

The *principle of privileged communications* is operative, of course, in this as in any other physician-patient relationship.

QUESTIONS AND ANSWERS

1. Q.—Mr. A requests possession of X-ray films of himself. Is it necessary to grant this?

A.—No. One of the few questions regarding release of films for which court precedent exists is that of ownership. In the case previously quoted of McGarry vs. J. A. Mercier Co. the court ruled that, in the absence of any special agreement to the contrary, ownership of the films remains with the roentgenologist who has made the examination or hospital where it was made.

2. Q.—Mr. B. requests for his own use, a copy of the report of an X-ray examination made of

himself, at the request of his referring physician. Is it necessary or advisable to grant this?

A.—Court opinion has not as yet ruled on this question. No written contract is as a rule involved. The implied contract under which the examination was made involved only an examination and a report to the physician who referred the patient for roentgenological consultation. Court interpretation of the implied contract would undoubtedly be influenced by common practice in similar situations and it is not, of course, common practice to deliver roentgenological reports directly to the patient.

As a general rule it is not advisable. A committee of members of the American Roentgen Ray Society recommended in 1914 as follows: "That no report should be given to the patient except through the referring physician or surgeon. The patients are sent for consultation and diagnosis and are not entitled to plates or prints. Prints in the hands of patients lead to false interpretations, confusing opinions, multiplicity of advice and bad results."

3. Q.—*Is Mr. C. to be granted opportunity to view his films?*

A.—In general, no. (See answer to question 2.) The opportunity should be granted however, if desired by the referring physician. In some cases discussion of the films with the radiologist will increase the patient's cooperation or morale. In other cases (as in metastatic malignancy or hypochondriasis) it might be very inadvisable. The decision is best left to the referring physician. In special instances, as in clearly demonstrable fractures, the attending physician's assent may be taken for granted and the patient's natural curiosity satisfied.

4. Q.—*Mr. D. has changed physicians. Should the radiologist, at Mr. D.'s request, send a copy of the X-ray report to the new physician and permit him to view the films?*

A.—A recent decision of a California Superior Court ruled that the roentgenologist was "justified in refusing to surrender possession of the X-ray negatives" when the roentgenologist had refused to show the films except on authorization of the referring physician.

It is to be noted, however, that the patient may discharge a physician at any time without explanation and when he discharges the attending physician, he does not by doing so discharge all consultants the physician has had in connection with the patient's diagnosis or treatment. The consultant and the patient still remain in a physician-patient relationship. No one can gain by a refusal as it will not improve the relationship between patient and original physician. The patient will certainly gain if the request is granted. Common sense indicates that the patient's right to change physicians would be im-

pugned by refusal to grant this request. Granting the request is apparently not legally mandatory but is considered advisable.

5. Q.—*Should a copy of the report be sent, at Mr. E.'s request, to his lawyer without the referring physician's permission?*

A.—Yes, although according to the California Superior Court decision this also is not legally necessary. The only case in which one of the interested parties might be harmed by such action would be in case the patient were bringing suit against the referring physician. In such a case, if the X-ray evidence were pertinent, the physician could hardly hope to defend himself by keeping the evidence out of court. The legal right of privileged communication is completely in the patient's control and his physician cannot prevent his waiving that right.

6. Q.—*A lawyer representing an insurance company requests opportunity to view Mr. F.'s films. Should this be granted without Mr. F.'s authorization?*

A.—No. The statutory laws of privileged communications require that no information be given out without the patient's permission.

If, on the other hand, the insurance company has paid for the examination the patient may be considered to have given consent to release of information to the company. The Michigan decision indicates that compliance even in this situation is not necessary, the reports to the physician being sufficient to fulfill the contract. As a practical matter, however, failure to make the release, if the insurance company has paid for the examination, is merely obstructive.

7. Q.—*A doctor of medicine engaged by an insurance company which is liable for injuries to Mr. G. has requested an X-ray examination following an accident and the insurance company has paid the roentgenologist's fee. Should a copy of the X-ray report be sent to Mr. G.'s personal physician or lawyer at Mr. G.'s request?*

A.—Yes. Mr. G. is the person primarily concerned in the examination and, in the absence of any agreement to the contrary, has only yielded to the insurance company the right of access to the information derived from X-ray examination. He has not yielded to the company the exclusive right to such information. The courts might rule that such release of information is not necessary. It does not appear that they would rule it improper.

8. Q.—*Should films be released, at Mr. H.'s request, to his chiropractor or osteopath?*

A.—Under contractual law it is not necessary. It would usually be impolitic. Most physicians would consider it unethical.

9. Q.—*Do the statutes pertaining to privileged communications apply to testimony in court?*

DATES FOR 1944 ANNUAL MEETING CHANGED TO MAY 2, 3 and 4, NOT AS ANNOUNCED IN NOVEMBER ISSUE OF THE JOURNAL

TO avoid conflicts with other medical meetings, the Committee on Scientific Work with the approval of The Council has set the dates, May 2, 3 and 4, for the 1944 Annual Meeting of the Ohio State Medical Association. The original dates as announced in the November issue of *The Journal* were May 9-10, but these have been cancelled.

The meeting will be held at the Neil House, Columbus.

The program will consist of General Sessions, some Section Sessions, Discussion and Question-Answer Conferences, Technical Exhibit, and the customary business sessions.

It will be a real old-fashioned Annual Meeting, with outstanding guest speakers and plenty of time for informal discussion-group meetings.

Make your plans now to attend—Tuesday, Wednesday and Thursday, May 2, 3 and 4, at Columbus.

A.—Yes. In most instances, however, the patient either by bringing a court action or in some other way, has waived the privilege. Both films and records are subject to subpoena at any time and must be produced when ordered by the court. The question of their admissibility as evidence under the code of privileged communications is then to be decided by the court.

SUMMARY

Summary of the legal and ethical principles involved in the release of X-ray films and reports:

1. When the consultant roentgenologist has made the examination and sent his report to the referring physician he has completely fulfilled his legal contract.

2. "Films or reports in the hands of patients lead to false interpretations, confusion of opinions, multiplicity of advice and bad results" (American Roentgen Ray Society). It is therefore *in the best interests of the patient* that all reports or opportunity to view films come to him through the referring physician or with his permission.

3. The patient has the right to change physicians and does not automatically discharge consultants in so doing. It is therefore *in the best interests of the patient* that access to the reports and films be given at the patient's request to any physician or other person who has a legitimate interest in the case.

4. No one may be given the right of access to films or reports without the patient's permission.

5. Ownership of the film remains with the roentgenologist.

Rules to be established in a roentgenological office or hospital department to govern the release of films and reports according to these principles: 1. Films and reports shall be shown

to patients or relatives only at the request of the referring physician.

2. Regardless of who has paid for the examination, films and reports shall be made available to any physician or other person with a legitimate interest at the patient's request.

3. No one shall be given access to films or reports without the patient's permission.

4. All films remain the property of the roentgenologist. Films loaned shall be accompanied by a request for prompt return.

Death Rate In 1942 Lowest On Record, Figures Show

A death rate of 10.4 per 1,000 population in 1942, first year of American participation in World War II, was the lowest on record, the Census Bureau reports. The 1941 rate was 10.5.

Although there were increases in the three leading causes—heart diseases, cancer and cerebral hemorrhage—sharp reductions were recorded in the rates for pneumonia and influenza and for automobile accidents.

The 10 leading causes together with comparative rates per 100,000 population were:

	1942	1941
Heart diseases	295.2	290.2
Cancer and other malignant tumors	122.1	120.2
Cerebral hemorrhage	90.2	89.1
Kidney diseases	72.4	75.1
Pneumonia and influenza	55.7	63.9
Tuberculosis	43.1	44.5
Premature birth	25.8	25.1
Diabetes	25.4	25.5
Automobile accidents	21.2	30.0
Syphilis	12.2	13.3

War casualties abroad were included in computing the death rates only in cases where the bodies were returned to this country.

Names of 31 Additional Ohio Physicians Are Entered on Military Roster Which Now Totals 2,678

AS of November 23, 1943, there were 2,678 Ohio physicians serving as medical officers in the Army, Navy or other Federal services engaged in war-time activities. The names of 31 were entered on the Ohio military roster during the past month. The breakdown by services is as follows: Army, 2,296; Navy, 320; other services, 62.

Those whose names were placed on the military roster during the past month; those promoted; and the tabulation by counties follow:

NAMES ADDED TO MILITARY ROSTER

Name	City	Rank
Asbury, Charles W.	Hamilton	1st Lt., U.S.A.
Ayres, P. R.	Columbus	Lt. (j.g.) U.S.N.
Bachmann, Henry	Delaware	1st Lt., U.S.A.
Blackburn, John H.	Kalida	1st Lt., U.S.A.
Banfield, Wm. Scott	Irondale	Lt., U.S.N.
Bassett, Gardner G.	Cleveland	1st Lt., U.S.A.
Bossert, Lester J.	Cincinnati	Lt., U.S.N.
Brown, Wm. E.	Cincinnati	Lt. Comdr., U.S.N.
Couchman, L. C.	Chillicothe	Capt., Royal Canadian Army
Dineen, Frederick J.	Painesville	Lt. Comdr., U.S.N.
Faircloth, Wm. B.	Zanesville	Lt. Comdr., U.S.N.
Felson, Walter	Greenfield	Capt., U.S.A.
Funk, John A.	Coshocton	Lt., U.S.N.
Green, Joseph	Cincinnati	1st Lt., U.S.A.
Karson, Andrew J.	Canton	1st Lt., U.S.A.
Kawasaki, Leonard	Cincinnati	Capt., U.S.A.
Kuhn, Howard F.	Cincinnati	Lt. (j.g.) U.S.N.
Macey, Wm. N.	Cleveland	Lt., U.S.N.
Maggied, Sol	Columbus	Lt. (j.g.) U.S.N.
Norris, James W.	Columbus	1st Lt., U.S.A.
Nuss, Robert Henry	Cleveland	Lt. (j.g.) U.S.N.
Ochs, Carl Joseph	Cincinnati	Capt., U.S.A.
Pumphrey, Robert E.	Dayton	Lt. Comdr., U.S.N.
Shipley, Thomas	Canton	1st Lt., U.S.A.
Smith, Thomas L.	Lorain	Lt. (j.g.) U.S.N.
Thill, Leonard J.	Youngstown	U.S.P.H.S.
Wentzler, Norman Edgar	Akron	Lt. (j.g.) U.S.N.
Whitacre, H. E.	Bowling Green	Lt. Comdr., U.S.N.
Wiggers, Lowe H., Jr.	Cincinnati	Lt. (j.g.) U.S.N.
Ziegler, Samuel R.	Youngstown	1st Lt., U.S.A.
Ziskind, J. A.	Columbus	Capt., U.S.A.

WIN PROMOTIONS

Name	City	Rank
Altmaier, C. J.	Marion	Capt., U.S.A.
Ameter, Russell K.	Bryan	Capt., U.S.A.
Angerman, W. H.	Wooster	Capt., U.S.A.
Beasley, Wm. D.	Springfield	Major, U.S.A.
Benes, Franklin A.	Shaker Heights	Capt., U.S.A.
Bennett, K. E.	Strasburg	Capt., U.S.A.
Brown, J. Q.	Columbus	Capt., U.S.A.
Burgess, E. C.	Wooster	Capt., U.S.A.
Campbell, Ivor M.	Akron	Major, U.S.A.
Counts, Richard L.	Chillicothe	Capt., U.S.A.
Crawford, Robert R.	Mansfield	Lt. Comdr., U.S.N.
Felker, C. L.	Toledo	Capt., U.S.A.
Fisher, Alex S.	East Liverpool	Capt., U.S.A.
Frick, David C.	Toledo	Lt. Col., U.S.A.
Gallagher, John E.	Toledo	Capt., U.S.A.
Giannestras, N. J.	Cincinnati	Major, U.S.A.
Greenamyre, D. L.	Alliance	Capt., U.S.A.
Groom, Horace E.	Akron	Col., U.S.A.
Hedlund, G. O.	Painesville	Comdr., U.S.N.
Hudson, E. H.	Athens	Comdr., U.S.N.
Long, Henry A.	Hamilton	Capt., U.S.A.
Lowry, Forrest E.	Urbana	Major, U.S.A.
Martin, M. B.	Springfield	Capt., U.S.A.
McCammon, F. A.	Van Wert	Major, U.S.A.
McDonald, F. M.	Akron	Major, U.S.A.
Meck, Floyd S.	Cleveland	Lt. Comdr., U.S.N.
Mollin, E. L.	Akron	Capt., U.S.A.
Munns, Thomas A.	Oxford	Major, U.S.A.
Myers, Ben Vernon	Elyria	Major, U.S.A.

Name	City	Rank
Oberson, E. C.	Cleveland	Major, U.S.A.
Pilloff, Benjamin	Uhrichsville	Capt., U.S.A.
Pocotte, Robert W.	Toledo	Capt., U.S.A.
Roenick Henry H.	Cleveland	Capt., U.S.A.
Roller, Jay P.	Luckey	Major, U.S.A.
Ryan, E. J.	Cleveland	Lt., U.S.N.
Schilling, Irving O.	Cincinnati	Capt., U.S.A.
Schroder, C. R.	Cincinnati	Capt., U.S.A.
Singer, M. K.	Akron	Capt., U.S.A.
Smith, G. R.	Bainessville	Capt., U.S.A.
Todd, Oliver E.	Toledo	Major, U.S.A.
Toepfer, John B.	Cincinnati	Lt. Comdr., U.S.N.
Tsaloff, Nicholas M.	Akron	Major, U.S.A.
Vogel, Louis A.	Lakewood	Lt. Col., U.S.A.
Weinblatt, Morris	Toledo	Capt., U.S.A.
Worstell, Henry P.	Columbus	Comdr., U.S.N.
York, Dillard B., Jr.	Columbus	Major, U.S.A.
Young, John W.	Empire	Lt. Col., U.S.A.

TABULATION BY COUNTIES

Adams	2	Guernsey	6	Muskingum	8
Allen	38	Hamilton	394	Noble	1
Ashland	11	Hancock	13	Ottawa	9
Ashtabula	17	Hardin	7	Paulding	2
Athens	12	Harrison	4	Perry	4
Auglaize	6	Henry	2	Pickaway	5
Belmont	12	Highland	9	Pike	2
Brown	4	Hocking	4	Portage	2
Butler	28	Holmes	2	Preble	7
Carroll	1	Huron	14	Putnam	6
Champaign	8	Jackson	1	Richland	38
Clark	32	Jefferson	31	Ross	24
Clermont	9	Knox	11	Sandusky	11
Clinton	7	Lake	18	Scioto	19
Columbiana	11	Lawrence	7	Seneca	12
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	8	Stark	97
Cuyahoga	651	Lorain	36	Summit	143
Darke	6	Lucas	151	Trumbull	28
Defiance	4	Madison	6	Tuscarawas	19
Delaware	6	Mahoning	108	Union	2
Erie	10	Marion	15	Van Wert	9
Fairfield	9	Medina	13	Vinton	2
Fayette	2	Meigs	3	Warren	4
Franklin	216	Mercer	6	Washington	7
Fulton	6	Miami	13	Wayne	13
Gallia	5	Monroe	1	Williams	8
Geauga	4	Montgomery	129	Wood	17
Greene	8	Morgan	3	Wyandot	2
Total					2678

“Wake Up, Doctors? Let Us Meet the Issue!”

“To repeat, what I would like to see is action by the organization to which I have subscribed through the years. Certainly it cannot be so antiquated and dead that the interests of the profession are not within its power. If so, let us have a reorganization to meet modern conditions. Wake up, doctors! Let us meet the issue, let us be men, not angels”—Excerpt from letter in *Columbus Academy of Medicine Bulletin*.

Pamphlets which will assist the doctor to make an initial attack on the Wagner Bill by giving him something which he can give to his patients have been published by the Ohio State Medical Association and may be obtained from the Secretary of each County Medical Society or Academy. Education of the public about the dangers of this bill is the first and all-important step. “Wake up, doctors! Let us meet the issue.”

WAR NOTES

The splendid work of the medical units attached to the Fifth Army, fighting in Italy, was pointed out in a letter received by Maj. General Norman T. Kirk, surgeon general of the Army, from Lt. General Mark W. Clark, head of the Fifth Army, and published recently in *The Journal of the A.M.A.* General Clark wrote as follows:

Dear General Kirk:

"I desire to express the highest commendation for the wonderfully fine work performed by the medical units of this Army. Their devotion to duty under the hazardous and trying circumstances of the landing in Salerno Bay and their skill and efficient administration reflect the best traditions of the Service. Many wounded officers and men, who will eventually be restored to full health, would have died but for the effective work of the Medical Corps. I am especially well pleased with the performance of the Surgeon Fifth Army. He has done a magnificent job.

"From the first landing to the date of this letter, 3,335 casualties have been admitted to Fifth Army Hospitals. The first hospital opened within 3 to 5 miles of the front lines. The next hospital began to function the following day still closer and under more difficult conditions. Neither hospital had any nurses when opened. Thus far there had been only 42 deaths in the hospitals. Thirty-two of these cases were those of U. S. personnel who died from wounds. Five were U. S. personnel who died from disease or injuries; 5 were enemy who died of wounds. Many of those who survived would never have reached a hospital alive had the hospitals been located at a normal distance from the front.

"Two thousand and sixty-one cases have been evacuated to North Africa by air and sea.

"The beach medical service was superior. One medical battalion distinguished itself on the beaches under heavy fire early in the operation. I shall recommend that the unit be cited for its gallant work under terrible conditions.

"The medical supply system began to function according to plan with the assault wave, and despite the most difficult conditions it rapidly developed to the highest state of efficiency.

"Among the difficulties with which the medical services have had to cope were the loss of the entire equipment of our third evacuation hospital and the bombing of a hospital ship which was bringing the nurses. Fortunately only one nurse was injured, and all are again on their way to Italy to rejoin their units.

"The whole performance of the Fifth Army medical services has been most heartening to me and has been of incalculable aid in the operation. I have been so favorably impressed with their performance that I cannot forbear to write you this personal letter to tell you of my gratitude and admiration."

* * *

Capt. Lester A. Hamilton, formerly of Athens last reported in North Africa, is now in Italy after two months in Sicily.

A recent graduate of the Medical Field Service School at the American School Center, somewhere in England, was Capt. Richard L. Counts, formerly of Chillicothe.

* * *

After performing distinguished service in the battle for Munda, Lt. R. P. Scott, formerly of Norwalk, is being invalided home, relatives have been informed.

* * *

Lt. Comd. Paul L. Yordy, formerly of West Carrollton and Dayton, has been appointed co-supervisor of oxygen therapy classes at the U. S. Naval Hospital, San Diego. The training program is designed to teach medical officers and their aides how to use the iron lung, oxygen tents and similar equipment and how to improvise their own equipment while on the battlefield or ship during emergencies.

* * *

The Navy has announced the promotion of Dr. Henry P. Worstell, Columbus, former supervisor of the medical section, State Industrial Commission, to the rank of Commander at the U. S. Navy Pre-flight School, Iowa City.

* * *

After completing training at the Bethesda Navy Hospital, Lt. E. R. Torrence, formerly of Cleveland, has been placed in charge of the X-ray department at the Base Dispensary, Marine Corps Base, San Diego.

* * *

Maj. James M. Harsha, formerly of Washington C. H., has been named commanding officer of the Station Hospital, Camp Murphy, Florida, relieving Lt. Col. George K. Arnold, assigned to another post.

* * *

A citation, the Silver Star, for gallantry in action in Tunisia has been awarded to Maj. J. Paul Roller, formerly of Luckey, Wood County. Maj. Roller organized and personally led four ambulances under heavy fire to evacuate wounded and also led litter squads onto the battle field—activity "definitely above and beyond his line of duty."

* * *

Just what does a ship's doctor do while the battle rages? An idea may be obtained from the following excerpt of a letter written home by Lt. Robert A. Keating, USN, formerly of

Columbus, who was on one of the ships in the task force which started the fireworks in Sicily:

"Our ship was in command of the task force that went into Gela and being in command, was the first ship in. Most of the troops had been trained by the British Commandos and had been in the Dieppe raid as well as in Tunisia. We attacked about 3 A. M. July 10, and believe me, from then on the fireworks really started. The morning of the attack I stood on deck and watched the anti-aircraft fire coming from the beach, and the larger guns. Overhead were transport planes going in to land paratroops. Their bombers were giving us the works, as you might say. Our cruisers and destroyers were returning their fire extremely well. It was really quite a sight. The same morning we began to receive casualties aboard and from then on the medical department was kept quite busy. The six doctors had been divided into teams of two each plus two or three hospital corpsmen. I happened to be in charge of the abdominal and chest surgery and from Saturday morning until Tuesday morning I was kept busy most of the time in the operating room. Most of the casualties were penetrating wounds of the chest and abdomen. We treated the chest cases conservatively but our abdominal cases were operated immediately. We had a few kidney and bladder wounds which were operated upon with good results. The majority of the injured were orthopedics. We all picked shrapnel out until we were red in the face. We were bombed and strafed all the time we were working. About 32 bombs fell around our ship but none hit us directly although we received 13 holes in our ship.

"Needless to say we were all pretty scared but luck was with us. We left Sicily three days after we invaded and brought our injured back to a hospital ship and have been standing by ever since. We thought we would get back to the United States and have a little leave, but since Italy can't make up her mind I guess we will have to stay here for awhile."

* * *

Capt. W. E. McKee, formerly of Bryan, reported last spring as missing in action, is a "prisoner of the enemy" (presumably the Germans) according to information stamped on a communication mailed to him by the Ohio State Medical Association and returned during the past few weeks.

* * *

Lt. Harry W. Topolosky, formerly of Columbus, who was wounded in the Attu campaign, is convalescing at Fletcher General Hospital, Cambridge.

* * *

The following Ohio medical officers were graduated recently from the School of Aviation Medicine, Randolph Field, Texas, after completing a course for aviation medical examiners: Lt. Ernest Z. Bower, Jr., Ravenna; Capt. Robert A. Breckenridge, Cuyahoga Falls; Capt. Milton H. F. Gustafson, Cleveland; Lt. Robert K. Miles, Thompson; Lt. Rudolph J. Pospisil, Springfield; Capt. James A. D. Schaal, Cincinnati; Lt. Frederick S. Sperry, Akron.

News about Akron doctors in the service . . . Capt. C. E. Myers has been transferred to Camp Cooke, Calif., as venereal disease control officer . . . Capt. E. W. Breyfogle and Miss Dorothy Frye, Akron, were married recently . . . so were Lt. J. J. Scuderi and Miss Katherine Gormley, New York City.

* * *

Mrs. Harriet Marsico, Lorain, has received a letter from her husband, Capt. John Marsico, who was sent to a prison camp at Osaka after the fall of Corregidor. He practiced in Lorain before entering the service four years ago.

* * *

The husband of Mrs. Lillian Myers Whittacre, formerly of Metamora, Dr. Frank Whittacre, is aboard the Gripsholm bringing Americans from Japanese prison camps. Dr. Whittacre, on the staff of the Rockefeller Foundation and an instructor at Peiping Union Medical College, was interned by the Japs at the outbreak of the war.

* * *

Maj. Forrest E. Lowry, formerly of Urbana, has written several letters to his family which leave little doubt but that he is in the thick of the fighting in Italy with an evacuation hospital unit.

* * *

Two other Ohioans aboard the Gripsholm, Japanese-American prisoner exchange ship, are Dr. Ernest W. Weiss and his wife, both alumni of Baldwin-Wallace College and who were serving as missionaries in China at the outbreak of the war with Japan. Dr. Weiss graduated at the University of Cincinnati College of Medicine and served as resident at Bethesda Hospital, Cincinnati. Mrs. Weiss received her training as a nurse in the same hospital.

* * *

Lt. Col. John W. Young, formerly of Steubenville, is serving as hospital inspector at the Fletcher General Hospital, Cambridge.

* * *

Capt. Walter J. Brown has returned to Alaska after a 15-day leave at his home in Conneaut. He is chief of surgical service in a hospital with the Alaskan forces.

* * *

In the following Associated Press story, based on a release from the Office of War Information, care of the wounded in the present war with that of World War I is contrasted:

"Modern weapons are twice as deadly as the guns of 1917-18, but the 1943 casualty who isn't killed outright has twice the chances to survive as the wounded man of World War I.

"The Office of War Information reported tonight in the first comprehensive survey of the care of the war wounded that the serviceman

who 'stops one' has better than 96 chances in 100 to survive his wounds in this conflict.

"Shock and infection were the great killers of the wounded in 1917-18. In the present war, blood plasma transfusions greatly reduce the shock danger, and the sulfa family drugs have minimized the possibility of infection, both the Army and the Navy reported.

Better and faster treatment of the wounded also play a major part in reducing deaths from wounds, the OWI said. Both the Army and the Navy have revised their procedures for attending wounded men, having moved dressing stations almost up to the front lines.

"In the last war, wounded men were brought to the hospital,' the OWI reported, 'in this war, the hospital goes to the wounded men.'

"Army records show only 35 out of every 1,000 men wounded now succumb to their battle injuries, compared to a death rate of 60 a 1,000 in the last war. The Navy now loses only 31.6 men in each 1,000 wounded, less than half the 73.5 who died of wounds in 1917-18. The Marine Corps reports 31.5 deaths a 1,000 wounded, down from the 120 deaths per 1,000 recorded a quarter century ago.

"One soldier was killed by 1918 weapons for every six wounded. The deadly power of today's weapons is shown by the fact that one soldier is killed for every three wounded. Navy records show a ratio of one killed to one-plus wounded (6,076 dead and 7,810 wounded at the time of the survey), which is twice the rate of World War I days.

"Between 50 and 60 per cent of men who suffered head wounds died in 1917 and 1918. Deaths from head wounds have been cut to 9 per cent in the current war, due to plasma and sulfa treatments.

"In North Africa, 400 sailors were badly burned when their ship exploded. Under World War I conditions, 100 would have died within 48 hours. Only four of the 400 died, due to prompt treatment with plasma, the OWI reported.

"The survey also noted the percentage of necessary amputations had been reduced in this war, because of reduced infection and hemorrhage.

"The pain of wounds is also gently minimized now, through the more widespread use of morphine syrettes, which even an inexperienced man can use.

"The present conflict is a tougher war all around than World War I, the OWI said. The greater incidence of mental breakdowns is due to the increased strain and danger of the campaigns.

"Hospital admissions for mental ailments averaged between 20 and 30 a 1,000 a year 25 years ago, but the rate is up to between 50 and 60

a 1,000 in this war. In some particularly rugged theatres of war, 20 to 25 per cent of all hospital admissions are mental cases.

"The survey reported men were kept in action for longer periods without relief in this war, which contributed to nervous ailments.

"Psychiatric treatment in the front areas, however, has been found much more effective in treating war-induced mental ills than the method used to treat shell shock 25 years ago. From 50 to 70 per cent of the neuro-psychiatric are returned to combat duty after front area treatment, whereas in 1917-18 only a handful of shell shock victims recovered sufficiently to return to action."

* * *

Dr. C. S. Ordway, Toledo, gave a dinner recently in honor of his nephew, Capt. Bernard K. Cray, formerly of Toledo, who was spending a few days in Toledo before entering an army hospital at Tuscaloosa, Ala. Capt. Cray was wounded in action in the South Pacific and was awarded the Purple Heart.

* * *

One of the articles in the December issue of *Air Force*, official service journal of the U. S. Army Air Forces, was written by Lt. Col. Richard L. Meiling, formerly of Columbus, entitled, "Wings for the Wounded", a story of how the Air Evacuation Service has moved hundreds of thousands of wounded from battle areas. Col. Meiling is attached to the Office of the Air Surgeon, Washington.

* * *

Giving the address, Sec. Aux. Surg. Gp., APO 504, New York, Capt. James L. Kocour, formerly of Cleveland, writes that there are three Ohio physicians in his outfit based in North Africa, namely: Capt. Henry Hoffman, formerly of Cleveland; Capt. James J. Thomas, formerly Alliance; and Maj. Herbert J. Brinker, formerly of Cincinnati. He says the outfit is a pinch-hitting unit and gets into most of the "local clinches". Capt. Kocour's wife, Mrs. Frances Procopis Kocour, Army Nurses Corps, also is overseas but when he wrote he didn't know where.

* * *

Maj. F. A. McCammon, formerly of Van Wert, APO 634, New York, writes that there are a lot of Ohio doctors in England, "proud to be doing their bit for the cause.". He was promoted recently.

* * *

For the twenty month period ended July 31, 1943, discharges from the Army of the United States for physical disability totaled 208,296 men, according to an announcement made by the War Department recently. While more than half of these discharges were of a miscellaneous nature, the larger classifications in order were

neuropsychiatric, heart, disabilities, impairment of vision, tuberculosis and disabilities resulting from wounds. According to statistics from the Office of the Surgeon General, the percentage of disability discharges resulting from neuropsychiatric causes have increased within the twenty month period. Major Gen. Norman T. Kirk, Surgeon General, stated that "the Army has not granted disability discharges to any men who could be used effectively in the military prosecution of this war."

* * *

Maj. Frank J. Lacksen, formerly of Columbus, has been appointed consulting dermatologist for the First Air Force with headquarters at Mitchell Field, N. Y. Maj. Lacksen spent a few days in Columbus recently.

* * *

Maj. Gordon H. Pumphrey, formerly of Mt. Vernon, is chief of eye, ear, nose and throat service at the newly-dedicated Burns General Hospital, Santa Fe, N.M.

New Hospital At Wooster

In order to meet the immediate needs of the people of Wooster and Wayne County, a number of physicians have incorporated a new hospital unit in Wooster, to be known as "The Community Hospital Company", with the following physicians as trustees: Drs. P. C. McDowell, J. J. Kinney, L. A. Adair, L. G. Strauss, F. C. Ganyard, W. A. Morton and R. C. Paul. Officers of the company: Dr. McDowell, president; Dr. Morton, vice president; Dr. Paul, secretary-treasurer, and Dr. Strauss, superintendent. The new hospital has leased the building and facilities used by the Kinney Memorial Emergency Hospital. The building formerly occupied by the Wooster Hospital has been sold to the local Church of Christ and the patients transferred to the Community Hospital.

Coming Meetings

Ohio State Medical Association, Columbus, May 2-4, 1944.

American Medical Association, Chicago, June 12-16, 1944.

American Society of Anesthetists, New York, Dec. 9.

Association for Research in Nervous and Mental Diseases, New York, Dec. 17-18.

Society for the Study of Asthma and Allied Conditions, New York, Dec. 4.

Southern Surgical Association, New Orleans, Dec. 7-9.

Annual Congress on Medical Education and Licensure, Chicago, Feb. 14-15.

Christmas Seals Now On Sale; Ohio Goal Is \$600,000

Christmas Seals went on sale throughout Ohio on November 22, as a means of raising funds to support the work of the National Tuberculosis Association, the Ohio Public Health Association and 88 county-wide tuberculosis and health associations in their efforts to combat tuberculosis. The seal sale in Ohio is held in conjunction with the nationwide sale and will continue until Christmas.

The goal for Ohio this year is \$600,000. Last year the goal was \$500,000 and \$554,000 was raised. Proceeds of the sale are distributed as

PROTECT YOUR HOME FROM TUBERCULOSIS



BUY and USE Christmas Seals

follows: Eighty per cent is retained by the local group for use in the community; 15 per cent is turned over to the Ohio Public Health Association and five per cent goes to the National Tuberculosis Association.

This year, for the first time, the seal of the National Tuberculosis Association is being used by the national tuberculosis organizations of England, Canada, Mexico and Brazil to raise funds for their respective campaigns against the disease.

In urging support of the seal sale, officials of the Ohio Public Health Association warn that tuberculosis is far from being under control in the United States. Since 1904 the disease has moved from first cause of death to seventh, and the death rate has been cut 75 per cent. However, tuberculosis killed 60,000 people in this country last year and is still the great disease killer of persons between 15 and 45. The whole country faces the need of intensified tuberculosis programs, the O. P. H. A. points out, because the country is now threatened by a wartime rise in tuberculosis.

Do You Know - - -

Ohioans who attended the Annual Conference of Secretaries and Editors of Constituent State Medical Associations at the American Medical Association Building, Chicago, November 19-20, included the following: Dr. Edward J. McCormick, Toledo, member of the Council of Medical Service and Public Relations of the A.M.A.; Dr. Jonathan Forman, Columbus, Editor of *The Ohio State Medical Journal*; Charles S. Nelson and George H. Saville, Columbus, executive secretary and assistant executive secretary, Ohio State Medical Association; and the following executive secretaries of local academies of medicine: Stanley R. Mauck, Columbus, Raymond A. Swink, Cincinnati, and George W. Cooley, Toledo.

* * *

Robert E. Mills, executive director of the Youngstown Associated Hospital Service since 1938, has left for Puerto Rico, where he will direct the Puerto Rico hospital service.

* * *

Dr. G. Lombard Kelly, Dean of the University of Georgia School of Medicine, has been appointed secretary of the new Council on Medical Service and Public Relations of the American Medical Association.

* * *

Dr. Frank E. Adair, New York, vice-president of the American Society for the Control of Cancer, Inc., spoke on "The Conquest of Cancer", November 17, at the Cleveland Medical Library. The meeting was under the joint auspices of the Cleveland Academy of Medicine and the Women's Field Army for the Control of Cancer.

* * *

According to *Science News Letter*, the entire supply of oil distilled from the peppermint plant has been ordered set aside for government action to secure a just distribution. Most of the United States supply is produced in Michigan, Indiana, Ohio, California and Oregon. Unfavorable weather conditions this year caused domestic production to fall short of the goal.

* * *

In 1940 there were 11.9 marriages per 1,000 persons in the United States. The marriage rate increased to 13.3 in 1942, but the estimated rate for 1943 is 11.0.

* * *

Dr. Elizabeth C. Reid, widow of Dr. Mont R. Reid, was recently elected to the Council of the City of Cincinnati. She is the first woman council member there since 1925.

* * *

Scholastic standards of the nation's medical colleges may break down as a result of the accelerated wartime medical training programs,

Dean Willard C. Rappleye, dean of College of Physicians and Surgeons of Columbia University, warned the medical educators attending the 54th annual meeting of the Association of American Medical Colleges held recently at Cleveland.

* * *

Col. J. Henry Schroeder, Cincinnati, was elected vice-president of the Aero Medical Association at its recent annual meeting in Cincinnati.

* * *

Subscriptions to the Mont Rogers Reid Memorial Fund for the University of Cincinnati College of Medicine totaled \$300,851.67 on October 30, according to R. R. Deupree, Cincinnati, chairman of the Committee of Sponsors.

* * *

Kenneth C. Ray, state director of education, has designated December 10 as School Health Day in cooperation with National Tuberculosis Association, the Ohio Public Health Association and its affiliated county organizations.

* * *

Dr. J. H. J. Upham, Columbus, dean emeritus of the Ohio State University College of Medicine, and a past-president of the American Medical Association and the Ohio State Medical Association, spoke on "Vitamins", at the eighth annual conference of the Du Pont Medical Division, November 10, at Wilmington, Del. Approximately 60 physicians from the various Du Pont plants throughout the country attended.

* * *

Dr. Barney J. Hein, Toledo, chairman of the Committee on Industrial Health of the Ohio State Medical Association, was in Washington, D.C., November 10 for a public hearing of a sub-committee of the Committee on the Judiciary of the House of Representatives, on H.R. 786, the Tolan bill to permit chiropractors to treat beneficiaries of the U.S. Employees' Compensation Act. Dr. Hein was one of the two witnesses who appeared at the request of the American Medical Association in opposition to the enactment of the bill.

* * *

The 1944 Annual Session of the American Medical Association will be held June 12-16 in Chicago instead of St. Louis as originally planned. The change was made necessary because of information received that St. Louis could not furnish adequate hotel accommodations.

Meetings of the House of Delegates will be held at the Palmer House, and the Scientific Exhibit will be installed there. The Technical Exhibit will be housed at the Stevens Hotel.

British Physicians File Objections to the Beveridge Proposal

The attitude of the British Medical Association toward the Beveridge Plan (British counterpart of the Wagner-Murray-Dingell plan) is revealed in a report by the American Medical Association's London correspondent appearing in the "Foreign Letters" section of the November 20, 1943, issue of *The Journal of the A.M.A.* It reads as follows:

"At the annual meeting of the British Medical Association the membership was stated to be 44,288, an increase of over 3,000 in the past nine months. The three day debate was devoted almost entirely to the Beveridge plan and the dominant note was hostile. The chairman, Mr. H. S. Souttar, said that the medical profession was faced with the most important crisis in its history. The future of medicine in the new social epoch held vast possibilities, he said, but to bring them to fruition would demand wisdom, patience and not a little self sacrifice.

"A medical planning commission was formed in May 1941, and its interim report met with gratifying approval. When members of the commission were about to formulate details, a thunderbolt was launched on them in the shape of the Beveridge report. Its proposals were for the most part admirable, the chairman stated, but when the government set out to give them effect a different situation arose: 'Our axiom that first class medical service should be obtained by every individual, whatever his economic status, is expanded into the proposition that no one is to pay for our services. Our desire to work together in groups is converted into regimented service under a local authority.' As a result of discussions carried on with the Ministry of Health for four months there was reason to believe that the ministry's view had been greatly modified and were more likely to meet the approval of the profession.

"The following resolution was carried by 200 votes to 10: That in the opinion of the representative body the creating of a full time salaried state medical service is not in the best interests of the community. A resolution to the effect that a comprehensive medical service should be available to all who need it, but that it is unnecessary for the state to provide for those who are willing and able to provide for themselves, was carried by 149 votes to 37.

"A number of principles recommended by the committee which represented the medical profession in the conference with the minister of health were adopted. They included the following: 1. The system of medical service should be directed toward the achievement of positive health and the prevention of disease no less than toward the relief of sickness. 2. There should

be available for every individual the services of a general practitioner or a family doctor of his own choice. Consultants, specialists and all necessary auxiliary services should be available normally through the family doctor. 3. The health of the people depends primarily on environmental conditions, such as adequate nutrition and security from fear and want. Improvement of means to satisfy these needs should precede or accompany any future organization of health services. 4. It is not in the public interest that the state should convert the medical profession into a salaried branch of central or local government service."

Get Some Pamphlets!

Have you asked the secretary of your county medical society for a supply of the pamphlet "No! The Wagner Bill is Not the Answer"? They won't do any good in the original package in his office. They will do some good on the table in your reception room.

Licensed Through Endorsement

The following physicians have been granted licenses to practice medicine and surgery in Ohio, through endorsement of their licenses to practice in other states: Jack Wilson Baxter, Toledo, Baylor Medical College; Joseph J. Somberg, Cleveland, Columbia University; Robert R. Cross, Toledo, Georgetown University; Harry B. Schiffer, Dayton, George Washington University; Daniel V. Dougherty, Akron, George L. Engel, Cincinnati, Johns Hopkins University; Edward W. Kissel, Akron, Irving E. Percy, Cleveland, Loyola University; Ferdinand D. Bradford, Jr., Cleveland, Arthur T. Mealy, Dayton, Meharry Medical College; George Schuster, Toledo Medical College of Virginia; Anne Strax Robbins, Dayton, New York Medical College; Frank LeRoy Heck, Donnelsville, Rush Medical College; William J. Renner, Wickliffe, Saint Louis University; Marshall Stewart, Ashtabula, Temple University; James G. Jackman, Cleveland, University of Iowa; Louise A. Morley, Toledo, Lawrence E. VinZant, Akron, University of Kansas; Homer Earl Isley, Toledo, University of Louisville; Louisa E. Boutelle, Columbus, University of Minnesota; Richard Edward Wolf, Cincinnati, University of Pennsylvania; Milton B. Morey, Toledo, University of Rochester; Viola E. Veler Newby, Toledo, Vanderbilt University; Birna Nystrom Sullivan, Akron, Woman's Medical College of Pennsylvania; Louis Rotenberg, Cleveland, University of Ontario; Henry E. Wilson, Jr., Columbus, McGill University.

In Memoriam

Archie Ackers Brown, M.D., Carroll; Ohio State University College of Medicine, 1909; aged 56; member of the Ohio State Medical Association and the American Medical Association; died October 29. Dr. Brown practiced in Fairfield County for over 30 years. His widow and a daughter survive.

James Edward Heap, M.D., St. Marys; Medical College of Ohio, Cincinnati, 1905; aged 63; member of the Ohio State Medical Association and the American Medical Association; died October 8. Dr. Heap was city health commissioner. He practiced in St. Marys for 35 years.

William Harold Holland, M.D., Lakewood; University of Texas, Medical Branch, Galveston, 1912; age 61; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 20. Dr. Holland was accidentally killed while hunting deer in Canada. Originally located in Texas, Dr. Holland opened an office in Cleveland in 1920. His hobbies were hunting and wood carving. Dr. Holland was a member of the Masonic Order. His widow, two daughters, a son, a brother and nine sisters survive.

Henry J. Johnston, M.D., Bowling Green; Toledo Medical College, 1900; aged 67; member of the Ohio State Medical Association and the American Medical Association; died October 30. Dr. Johnston began his medical career in his home town of Haskins, but in 1907 moved to Tontogany. Then in 1942 he located in Bowling Green. Dr. Johnston served in the hospital corps during the Spanish-American War, and was a member of the Spanish-American War Veterans and the Veterans of Foreign Wars. President of the Wood County Board of Health, and a member and former president of the Board of Trustees of Bowling Green State University, Dr. Johnston was very active in civic affairs. The hospital building at the University is named the "H. J. Johnston Building" in his honor. Dr. Johnston was chairman of the Wood County Republican Executive Committee and a member of the Republican State Executive Committee from the 13th District. He was a member of the B.P.O.E. Surviving are his widow, a son and two sisters.

William Armstrong Lindsay, M.D., Niles; Ohio Medical University, Columbus, 1898; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died October 24. Dr. Lindsay began the practice of medicine with his father at Salineville in 1898. He later opened an office at Amsterdam,

and moved to Niles in 1915. Dr. Lindsay was a member of the Presbyterian Church, Masonic Order and the Loyal Order of Moose. Survivors include his widow, a son—Dr. Frank M. Lindsay, Homeworth, a sister, and three brothers, including Dr. S. C. Lindsay, Cleveland, and Dr. J. F. Lindsay, Youngstown.

Calvin M. Rice, M.D., Ravenna; Western Reserve University School of Medicine, 1881; aged 86; died October 31. Dr. Rice retired in 1910 after having practiced in Newton Falls since 1886. He was a charter member of the Masonic Lodge in Newton Falls. His widow and a sister survive.

William Edward Schoonover, M.D., Springfield; Pulte Medical College, Cincinnati, 1885; aged 85; died October 9. Dr. Schoonover had practiced in Springfield since 1901. He was previously located in St. Marys. A son and a daughter survive.

Archibald Alfred Southwick, M.D., Kendallville, Indiana; University of Wooster, Medical Department, 1912; aged 58; member of the Indiana State Medical Association and the American Medical Association; former member of the Ohio State Medical Association; died November 4. Dr. Southwick moved to Indiana six years ago, after having practiced in Cleveland for 25 years.

Clive Wylie Thompson, M.D., Cleveland; University of Wooster, Medical Department, 1907; aged 64; member of the Ohio State Medical Association and the American Medical Association; died November 7. Dr. Thompson practiced in the East End section of Cleveland for nearly 40 years. He served in the Spanish-American War and was a captain in the Medical Corps of the U.S. Army in World War I. Surviving are his widow, a son, his mother, two sisters and two brothers.

Space For A.M.A. Scientific Exhibit In 1944 Now Available

The Scientific Exhibit at the Chicago Session of the American Medical Association, June 12-16, 1944 will be held at the Palmer House. Exhibits will cover all phases of medicine and the medical sciences with particular emphasis on graduate medical instruction for the physician in general practice.

Application blanks for space in the Scientific Exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 N. Dearborn Street, Chicago 10, Illinois.

Activities of County Societies

First District

(COUNCILOR: E. O. SWARTZ, M.D., CINCINNATI)

CLINTON

A roundtable discussion by members on "Prevalent Diseases of the Mouth", featured a well-attended meeting of the Clinton County Medical Society, November 2, at the General Denver Hotel, Wilmington.—R. W. DeCrow, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during November:

Nov. 2—"The Treatment of Arterial Hypertension in the Ambulatory Patient", Dr. J. Harold Kotte; "Treatment of Hypertensive Heart Disease in Failure", Dr. Virgil D. Hauenstein. This meeting was held under the joint auspices of the Academy and the Heart Council of Cincinnati.

Nov. 16—Members of the Academy were guests at the general public session of the Southern Medical Association. The program: "The Care of Battle Casualties and the Casual Sick", Major General Norman T. Kirk, M.C., U.S. Army, the Surgeon-General, Washington, D.C.; "The Future of American Medicine", Dr. James E. Paulin, President, American Medical Association, Atlanta, Ga.; "The Nation's Most Valuable Asset and Its Greatest Problem", Dr. Harvey F. Garrison, President, Southern Medical Association, Jackson, Miss.

Second District

(COUNCILOR: H. C. MESSENGER, M.D., XENIA)

DARKE

Dr. H. C. Messenger, Xenia, Councilor for the Second District, was guest speaker at a meeting of the Darke County Medical Society, November 23, at the Greenville Hospital.—W. D. Bishop, M.D., secretary.

MIAMI

A colored, sound movie, entitled, "Peptic Ulcer", was presented through the courtesy of the John Wyeth Co., at a meeting of the Miami County Medical Society, November 5, at Stouder Hospital, Troy. This film, prepared under the direction of Dr. Everett Kiefer of the department of gastroenterology, Lahey Clinic, Boston, is one of the most complete films on the subject produced, and outlines the diagnosis, treatment, pathology, complications, medical and surgical treatment of the disease. It provides a complete clinical lecture of unusual merit and interest.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

The following program was presented by the Montgomery County Medical Society, at Good Samaritan Hospital, Dayton, November 5: "Early Treatment of Congenital Club Feet with Dennis-Brown Splint", Dr. H. H. Hilty; "The Management of Pulmonary Hemorrhage", Dr. G. Wolverton and Dr. H. Cassel; "Treatment of Pre-eclampsia and Eclampsia With the Use of Veratrum Viride", Dr. W. A. Ricketts; "The Interpretation of the RH Factor", Dr. C. Dille; "Uterine Prolapse — Cystocele — Rectocele", Dr. R. C. Austin.—R. K. Finley, M.D., president.

At its meeting on October 13, the Society adopted a resolution providing for the establishment of prenatal clinics in the Dayton hospitals for wives of enlisted men participating in the Emergency Maternity and Infant Care Program. The text of the resolution follows:

Whereas, in Montgomery County and the City of Dayton there exists a serious shortage of physicians and a critical lack of hospital beds, and

Whereas, The Emergency Maternity and Infant Care Program for wives and children of enlisted men is placing an added strain on our already overtaxed medical service facilities in this community,

Therefore, be it Resolved That the plan proposed by the Obstetrical Section and passed by the Council of this Society be adopted with the view of insuring adequate and expert obstetrical care for the dependents of service men entitled to the benefits of the Emergency Maternity and Infant care program,

Be it Resolved, That the adoption of this plan shall in no way interfere or conflict with patients employing their own private physicians as provided for by this act, and

Be it further Resolved, That the purpose of this plan is to insure competent and uniform maternity care to these patients who do not have their own obstetrician and at the same time to conserve the time and energies of our depleted medical personnel.

Be it Resolved, That

1. There be established a private pre-natal clinic at the Good Samaritan, Miami Valley and St. Elizabeth hospitals under direct supervision of a staff obstetrician, for wives of enlisted men participating in the Emergency Maternity and Infant Care Program;

2. Practicing physicians with requisite hospital privileges may refer patients to the private pre-natal clinic. They will receive a complete report of the history, physical and laboratory findings, and the referring physician or his associate must be in attendance at the delivery;

3. A list of participating physicians who are

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approved for obstetrical practice in the hospitals shall be available at the City of Dayton and the Montgomery County Health Departments. In the event an applicant for care has no physician, she shall be privileged to select a physician from the prepared list. If no selection is made, she shall be referred by the health department to the hospital private pre-natal clinic of her choice, and the attending staff obstetrician on duty shall make the necessary arrangement for her care.

In connection with the adoption of this report, your committee wishes to submit the following resolution:

Whereas, The Montgomery County Medical Society is heartily in accord with the apparent purpose of the Emergency Maternity and Infant Care Program; namely, to offer assistance to the wives and children of our boys in the armed forces, and

Whereas, We disagree with its method of application, and view with alarm the spread of bureaucracy in any field, and,

Whereas, We regret that the attempts of the Ohio State Medical Association to work out a plan in conjunction with some of the voluntary service relief organizations were blocked, and

Whereas, We feel that the present plan suffers from the evils and faults inherent in bureaucratic administration, and

Whereas, The adequate care of the sick is, and always has been, our responsibility regardless of race, creed, or social status, and this responsibility applies today with greater force to the dependents of our men in the armed forces,

Therefore, be it Resolved, That the members of the Montgomery County Medical Society give their whole-hearted support to the program presented by your committee providing maternity and infant care for dependents of service men.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

HANCOCK

American democracy and liberties are at stake at home as well as in the war zones as a result of insidious efforts to inaugurate totalitarian programs within the county that would further entrench bureaucracy, Dr. Edward J. McCormick, Toledo, told the members of the Hancock County Medical Society, November 11, at Findlay, in an address on the Wagner-Murray-Dingell bill.—News clipping.

MARION

Dr. Jay McLean, Columbus, gave an illustrated talk on "Breast Tumors", at a meeting of the Marion County Academy of Medicine, November 2, at Marion.—News clipping.

SENECA

Dr. Guy E. Noble, St. Marys, Third District Councilor, spoke on "The Wagner-Murray-Dingell Bill at a meeting of the Seneca County Medical Society, October 14, at Tiffin.—News clipping.

Fourth District

The Toledo Academy of Medicine presented the following programs during November:

Nov. 5—Tenth Annual Toledo University Post-Graduate Day. Guest speakers, Dr. William A. Sodeman, New York, and Dr. Lyman W. Crossman, New Orleans.

Nov. 12—Section of Pathology, Experimental Medicine and Bacteriology. Joint meeting with the Toledo Dental Society. Program by the Toledo Hospital Institute of Medical Research. "Mechanical Resuscitation in Asphyxia", Dr. Albert Dietz; "Studies in Leukemia—Agglutination of Leukemia and Normal Leukocytes of Antisera", Dr. Bernard Steinberg.

Nov. 19—Medical Section. "The Value of Psychology and Psychiatry in General Practice and Internal Medicine", 1st Lt. Samuel R. Lehrman, M.C., A.U.S., psychiatrist at the Toledo Induction Station and formerly assistant physician at Creedmoor and Utica State Hospital, New York.—Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during November:

Nov. 5—Clinical and Pathological Section. Case Reports. "Teratoma of the Kidney", Dr. J. J. Marek; "Bilateral Carcinoma of the Breast", Dr. R. R. Renner; "Ruptured Diverticulum of the Colon", Dr. W. Allyn, Jr., and Dr. A. Reed; "Thymic Death", Dr. N. DePiero; "Multiple Myeloma", Dr. E. Goodsit.

Nov. 11—Pediatric Section. "Diabetes With Complications", Dr. William J. Morrow; "Retropharyngeal Abscess", Dr. James F. Bosma; "Toxic Neuritis", Dr. Paul M. Kohn; "Pertussis With Convulsions", Dr. Fred Beekel; "Herpes of the Eye", Dr. Otto L. Goehle; "Segmental Neuralgia", Dr. John H. Davis; "Case of Meningitis", Dr. John A. Toomey; "Tuberous Sclerosis", Dr. James D. Pilcher; "Pathological Specimens", Dr. Herbert Z. Lund.—Bulletin.

GEAUGA

The Geauga County Medical Society held six meetings during 1943. At only two of these an out-of-town speaker furnished the program, as speakers were difficult to obtain because of war

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conditions. At the May meeting, representatives of the Upjohn Company gave an interesting illustrated lecture on "Adrenal Cortical Hormones", showing how the hormones are obtained and explaining the effect of insufficiency of them.

Dr. Edgar P. McNamee, Cleveland, Fifth District Councilor, met with the society October 27. He explained the many state and national legislative matters which are of vital importance to the medical profession. At this meeting, the 1943 officers and committeemen were re-elected for the coming year, and the 1944 State Association dues were collected. The society is again 100 per cent. Dues of all members are paid.

At the other four meetings, the program consisted of informal discussions of legislative, public relations and medical subjects, particularly those pertaining to wartime medicine. Because of the large number of cases of rabies among dogs throughout the state and Cuyahoga, Lake and Geauga counties, the following resolution was adopted at the October meeting:

"Resolved: That the members of this Society endorse the quarantine of dogs until such time as the State Director of Health shall declare the rabies emergency no longer exists."

The County Health Commissioner had required such a quarantine for the past two months, and was in need of medical backing for its enforcement.—Isa Teed Cramton, M.D., secretary.

LAKE

The meeting of the Lake County Medical Society, November 9, at the Lake County Memorial Hospital, Painesville, was one of the best of the year. Dr. Robert W. Schneider, Cleveland Clinic, gave a very interesting talk on "Diabetes Mellitus, With Acidosis as a Complication". The next meeting will be a supper at the hospital, Wednesday evening, December 8, at 6 o'clock. Officers will be elected for 1944.—E. Stanton Jones, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. E. G. Kuhlman, East Liverpool, conducted a symposium on the various phases and treatment of meningitis at a meeting of the Columbiana County Medical Society, November 9, at Lisbon.—News clipping.

MAHONING

Dr. E. E. Baird, Cleveland, "proved a most versatile artist" by his address to the Mahoning County Medical Society on "The Endocrines", October 12. Dr. Baird pinch-hit on short notice for Dr. John W. Wilce, Columbus.

Lt. R. A. McGuigan, M.C., U.S.N.R., Great Lakes Naval Hospital, formerly of Evanston,

Ill., spoke on "Modern Treatment of Battle Casualties", at a meeting of the society, Nov. 16, at the Youngstown Club.—Bulletin.

PORTAGE

"Contact Dermatitis", was the subject of an address made by Dr. H. A. Haynes, Jr., Akron, at a meeting of the Portage County Medical Society, November 11, at the Robinson Memorial Hospital, Ravenna.—Emily Widdecombe, M.D., secretary.

SUMMIT

Dr. John A. Toomey, clinical professor of pediatrics, Western Reserve University School of Medicine, Cleveland, spoke on "Fundamental Information About Poliomyelitis", at a meeting of the Summit County Medical Society, at the Mayflower Hotel, Akron, November 2.—Bulletin.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

TUSCARAWAS

Probate Judge J. H. Lamneck gave an address on "Juvenile Delinquency", at a meeting of the Tuscarawas County Medical Society, October 13, at the summer home of Dr. D. H. Downey, near Dover.—News clipping.

CLASSIFIED ADVERTISEMENTS

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Eighth District

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GUERNSEY

Dr. C. C. Sherburne, Columbus, President of the Ohio State Medical Association, spoke on the Wagner Bill at a meeting of the Guernsey County Medical Society, October 21, at Cambridge.

At a meeting of the Guernsey County Medical Society, November 18, Major O. E. Nadeau of the Fletcher General Hospital staff, spoke on "Treatment of Gastric Ulcer." Dr. A. B. Headley had read a paper on "Symptoms and Pathology of Gastric Ulcer" a few weeks previously.—M. S. Lawrence, M.D., secretary.

Tenth District

(COUNCILOR: GEORGE T. HARDING, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during November:

Nov. 1—"New Methods of Anaesthesia and Their Application to Office Procedures", Dr. Norris E. Lenahan. "Case Reports on the Use of Heparin", by Dr. Jay McLean.

Nov. 15—"The Diagnosis and Treatment of Endocrine Gynecological Disorders", Dr. Lawrence M. Randall, chief of the Section on Obstetrics and Gynecology, Mayo Clinic.—Bulletin.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

Dr. C. C. Higgins, Cleveland, spoke on "The Present Day Management of Infections of the Urinary Tract", at a meeting of the Lorain County Medical Society, November 9, at the Lorain Country Club, Lorain.

WAYNE

Two motion picture films: "Peptic Ulcer," and "Adrenal Cortex," were shown through the courtesy of the John Wyeth Company at a meeting of the Wayne County Medical Society, November 3, at Wooster.—R. C. Paul, M.D., secretary.

Woman's Auxiliary News

BOARD MEETING

The regular Fall meeting of the Board of Directors of the Woman's Auxiliary to the Ohio State Medical Association was held at the Deshler-Wallick Hotel, Columbus, October 13. The following members were present: Mrs. J. L. Stevens, Mansfield, president; Mrs. R. S. Fidler, Columbus, president-elect; Mrs. Frank Siedenburg, Portsmouth, vice-president; Mrs. Geo. M. Wilcoxon, Alliance, secretary; Mrs. Theodore

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Vinke, Cincinnati, treasurer; district directors—Mrs. Maurice Hoyt, Hillsboro, First; Mrs. Julius Shamansky, Mt. Vernon, Tenth; Mrs. Leonard Hautzenroeder, Mansfield, Eleventh; committee chairmen—Mrs. Dale P. Osborn, Cincinnati (past-president), Finance; Mrs. C. M. Fitch, Portsmouth, Hygeia; Mrs. D. W. Heusinkveld, Cincinnati, Legislation; Mrs. Charles R. Meek, Lorain, Public Relations; Mrs. Ralph W. Hoffman, Columbus, Study Group; Mrs. Paul A. Davis, Akron, War Service.

Charles S. Nelson, Executive Secretary of the Ohio State Medical Association, was a luncheon guest of the Board preceding the meeting. He discussed the Wagner-Murray-Dingell bill and plans for combating its enactment.

The Board approved the Treasurer's report, showing a balance on hand in the checking account of \$255.99, as of October 13, and \$673.72 in the savings account. The latter amount includes \$511.24 in the Nurses' Loan Scholarship Fund, which is unused because of the government's cadet nursing program. It was decided that a recommendation concerning the disposition of this fund be presented to the House of Delegates at the meeting next Spring.

Reports of the other officers and committee chairmen were submitted and approved.

It was announced that the next annual meeting of the Auxiliary will be held in Columbus, May 2, 3 and 4, 1944—during the meeting of the Ohio State Medical Association. Mrs. John E. Briggs, Columbus, was named Convention Chairman and Mrs. Siedenburger, chairman of the Memorial Services Committee.

Mrs. Osborn presented in detail the effort of the Woman's Auxiliary in Georgia to assist the medical profession during the war emergency by organizing a "Doctor's Aide Corps". Prepared through an intensive lecture course offered by the physicians, these Auxiliary members pinch-

hit in physician's offices, and assist with blood typing, etc. The Board approved organization of similar Doctor's Aide Corps in any county desiring to inaugurate such an effort.—Mrs. J. L. Stevens, president; Mrs. George M. Wilcoxon, secretary.

BUTLER

The first meeting of the year of the Woman's Auxiliary to the Butler County Medical Society was a joint dinner session, October 28, with the Union District Medical Association and the county society, at the Manchester Hotel, Middletown. Dr. Paul I. Hoxworth, of the Department of Surgery, University of Cincinnati College of Medicine, spoke on "Blood Transfusions—Sources, RH Factor and Reactions". Short individual group meetings were held immediately following the dinner.

FRANKLIN

A symposium on "Public Health" was presented by Dr. Russel G. Means, Dr. Myron D. Miller, Dr. William B. Morrison and Major Roger E. Herring, at a meeting of the Woman's Auxiliary to the Columbus Academy of Medicine, October 18.

Charles S. Nelson, executive secretary, Ohio State Medical Association, spoke on the topic "No! The Wagner Bill Is Not the Answer", at a meeting of the Auxiliary on November 15.

New officers of the auxiliary for 1943-1944 are: Mrs. John W. Wilce, president; Mrs. John E. Briggs, vice-president; Mrs. Myron D. Miller, president-elect; Mrs. Charles W. Baech, recording secretary; Mrs. Tom S. Lewis, corresponding secretary, and Miss Allyne Stout, treasurer.

HIGHLAND

At a meeting of the Woman's Auxiliary to the Highland County Medical Society, October 6, at Hillsboro, the following officers were elected for 1943-1944; Mrs. W. B. Roads, Hillsboro, presi-



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Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

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dent; Mrs. J. M. Byers, president-elect; Mrs. Carl W. Kumpe, Hillsboro, vice-president, and Mrs. J. C. Bohl, Hillsboro, secretary-treasurer.

MAHONING

Two talks, one by Dr. William M. Skipp on "Medical Aspects of the Wagner-Murray-Dingell Bill", and the other by Dr. F. F. Piercy on "Maintaining Public Good Will in the War Crisis", marked a meeting of the Woman's Auxiliary to the Mahoning County Medical Society, October 18, at the Woman's City Club, Youngstown.

ROSS

The Woman's Auxiliary to the Ross County Academy of Medicine held their regular meeting November 4, in Chillicothe. Mrs. G. W. Cooper presided. Thirteen of the 24 members were present. Mrs. O. L. Iden and Mrs. Glenn Nisley presented papers on the Wagner-Murray-Dingell Bill, after which there was an open discussion of the bill.

As requested by the State Chairman, Mrs. Loy E. Hoyt was appointed chairman of the War Service Program. Mrs. E. P. Shepard was placed in charge of Bulletin subscriptions. Mrs. Walter Kramer reported on the activities of other County Auxiliaries, and read the speech of Dr. Morris Fishbein delivered at the National Auxiliary meeting.

Mrs. Hoyt reported over 100 surgical bandages have been completed by the Auxiliary.

SUMMIT

Dr. R. A. Gregg, secretary of the Summit County Medical Society and chairman of its Advisory Committee to the Auxiliary, discussed various methods by which the Auxiliary may assist the medical profession in arousing opposition to the Wagner Bill, at a meeting, November 2, in the Nurses' Home at People's Hospital, Akron.

Cleveland—Dr. M. Paul Motto, President of the Academy of Medicine of Cleveland, recently addressed the Men's Club of St. James Catholic Church on the Wagner Bill.

Columbus—Dr. C. C. Sherburne, President of the Ohio State Medical Association, discussed the Wagner-Murray-Dingell bill at a meeting of Alpha Epsilon Delta, pre-medical honor fraternity at Ohio State University.

Sidney—Members of the Rotary Club were told of the broad implications of the Wagner Bill by Dr. H. C. Clayton at a recent meeting.

St. Marys—Dr. Guy E. Noble is the new city health commissioner.

Toledo—Dr. Edward J. McCormick, past-president of the Ohio State Medical Association, spoke on "Socialized Medicine", at a meeting of the Toledo Post, American Legion.

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December 15 Deadline For Filing Revised Income Tax Estimate

December 15 is the deadline for filing an amended declaration of estimated income and income tax for the year 1943. If a taxpayer's income for 1943 promises to be enough higher than estimated on September 15 to risk a penalty, or enough lower to result in a tax saving, a revised declaration may be filed with the District Collector of Internal Revenue on declaration form No. 1040-ES, and marked "Amended". If the amounts estimated in September remain substantially correct and the taxpayer's marital status is unchanged, a new declaration need not be filed.

Series of Lectures on Cardiology Scheduled at Magruder Hospital

The Staff of Magruder Hospital, Port Clinton, is presenting an Institute on Cardiology, on the second Friday of each month, consisting of six lectures, the first of which was held on November 12, when Dr. Willis Peck, Toledo, spoke on "Anatomy and Roentgenology of the Heart". The balance of the program follows:

Dec. 10—"Arrhythmia; Myocarditis; Thyroid-toxicosis Toxic; etc.", Dr. N. Worth Brown, Toledo.

Jan. 14—"Angina, Coronary Disease", Dr. Frank Clifford, Toledo.

Feb. 11—"Rheumatic Heart Disease; Valvular Heart Disease", Dr. Brown.

March 10—"Hypertensive Heart Disease; Myocardial Enlargement", Dr. Clifford.

April 14—"Luetic Heart Disease", Dr. Roy W. Scott, Cleveland.

Officers of the staff are: Dr. C. C. Sheldon, president; Dr. L. L. Belt, secretary-treasurer, and Mabel Selin, R.N., superintendent.

Lectures will begin at 4:30 P.M., with dinner at 6:00 P.M. Dinner reservations should be addressed to the hospital.

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Pamphlets regarding the Wagner Bill have been published by the Ohio State Medical Association. You can get a supply from the Secretary of your County Medical Society or Academy of Medicine.

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A Textbook of Medicine, edited by Russell L. Cecil, M.D. (\$9.50. Sixth Edition. *W. B. Saunders Company, Philadelphia*) presents 1532 pages of carefully edited factual material covering the field of medicine in a condensed but satisfactory manner.

Clinical Laboratory Methods and Diagnosis. A Textbook on Laboratory Procedures With Their Interpretation, by R. B. H. Gradwohl, M.D. (two volumes, third edition, \$20.00. *C. V. Mosby Company, St. Louis*) dates your reviewer for he remembers when Stitt's little pocket manual was enough. Each year saw it grow and be outstripped by his younger brothers until here we have more than 2200 pages of information on medical laboratory procedures. Needless to say then that the work is complete in every detail from Abbott's Stain to Zygote. No other books are needed.

Allergy, by Erich Urbach, in collaboration with Philip M. Gottlieb, M.D. (\$12.00 *Grune & Stratton, New York City*) is the newest, largest, and in many respects the most complete text on the subject. When a skilled writer and clinician such as the author, summarizes 2400 articles and weaves into this story his own extensive experience, we come to realize what huge strides the study of allergy has really made. To your reviewer the best part of this book is the emphasis the authors continually place upon the predisposing factors. We have always insisted that we only expect temporary results if these predisposing factors are not eliminated. Such a program is essential as it requires such fundamental alteration in the patient's mode of living, working, eating, and even thinking that most of us physicians are content to ignore them and try for temporary relief with hyposensitization injections. This point of view makes this work worth a great deal more than most books dealing only with avoidance and "shots."

Clinical Audiometry, by C. C. Bunch, Ph.D. (\$4.00. *C. V. Mosby Company, St. Louis*) sets forth the technics and recommendations of years of research at Iowa, Hopkins, Washington University, Central Institute for the Deaf, and Northwestern University. It is a book of great practical importance to the otologist.

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**Laryngoscope*, Feb. 1935, Vol. XLV, No. 2 — 149-154.

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